

# 10th BIOLOGY

NOTESPK Test Series

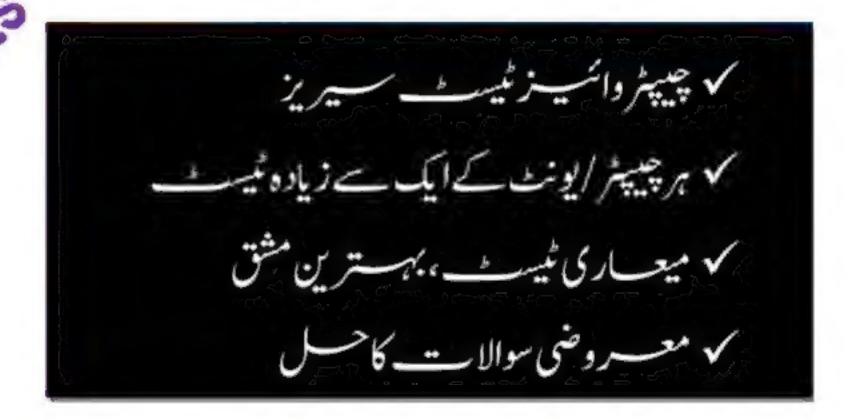
Chapter Wise, Quarter Wise, Half Book, Full Book Test Series



# Biology

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Endish Medium le-



# Prepared By:

Versatile Publishers

Revised By: Nauman Sadaf
ورسٹائل پبلشرن فیصل آباد

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**NOTESPK Test Series** 



VERSATILE

**CLASS TESTS** 

BIOLOGY

CLASS 10th

**English Medium** 

Chapter Wise, Quarter Wise, Half Book, Full Book Tests

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Faisalabad

# Key to Biology (English Medium)

			.,		- 3,	(3			,			
Test # 1	1(b)	2(d)	3(d)	4(c)	5(c)	6(b)	7(c)	8(d)	9(b)	10(c)	11(b)	12(a)
Test # 2	1(b)	2(c)	3(b)	4(c)	5(a)	6(c)	7(c)	8(a)	9(b)	10(d)	11(d)	12(a)
Test # 3	1(a)	2(d)	3(c)	4(b)	5(a)	6(b)	7(d)	8(a)	9(c)	10(b)	11(c)	12(a)
Test # 4	1(a)	2(b)	3(c)	4(d)	5(c)	6(b)	7(d)	8(d)	9(a)	10(c)	11(c)	12(b)
Test # 5	1(c)	2(a)	3(d)	4(d)	5(b)	6(b)	7(b)	8(c)	9(c)	10(a)	11(a)	12(c)
Test # 6	1(a)	2(c)	3(c)	4(b)	5(a)	6(b)	7(a)	8(c)	9(d)	10(c)	11(b)	12(d)
Test # 7	1(d)	2(d)	3(c)	4(c)	5(a)	6(a)	7(b)	8(b)	9(d)	10(a)	11(d)	12(c)
Test # 8	1(b)	2(b)	3(c)	4(b)	5(a)	6(c)	7(d)	8(c)	9(a)	10(a)	11(b)	12(d)
Test # 9	1(b)	2(b)	3(c)	4(d)	5(c)	6(a)	7(a)	8(b)	9(c)	10(d)	11(b)	12(b)
Test # 10	1(b)	2(a)	3(b)	4(a)	5(a)	6(c)	7(d)	8(c)	9(a)	10(c)	11(a)	12(b)
Test # 11	1(a)	2(d)	3(b)	4(c)	5(b)	6(a)	7(b)	8(a)	9(d)	10(a)	11(b)	12(c)
Test # 12	1(a)	2(d)	3(c)	4(d)	5(a)	6(a)	7(b)	8(b)	9(d)	10(a)	11(d)	12(b)
Test # 13	1(c)	2(d)	3(b)	4(a)	5(a)	6(b)	7(c)	8(c)	9(a)	10(b)	11(b)	12(a)
Test # 14	1(b)	2(b)	3(d)	4(c)	5(c)	6(b)	7(d)	8(a)	9(c)	10(b)	11(b)	12(a)
Test # 15	1(b)	2(c)	3(d)	4(c)	5(b)	6(d)	7(a)	8(d)	9(a)	10(c)	11(c)	12(a)
Test # 16	1(d)	2(d)	3(c)	4(a)	5(a)	6(a) .	7(b)	8(a)	9(d)	10(c)	11(a)	12(b)
Test # 17	1(d)	2(c)	3(b)	4(b)	5(a)	6(b)	7(c)	8(c)	9(d)	10(d)	11(d)	12(a)
Test # 18	1(c)	2(a)	3(d)	4(b)	5(c)	6(d)	7(b)	8(a)	9(b)	10(a)	11(b)	12(a)
Test # 19	1(d)	2(a)	3(d)	4(a)	5(b)	6(d)	7(a)	8(b)	9(a)	10(b)	11(b)	12(a)
Test # 20	1(b)	2(a)	3(c)	4(a)	5(b)	6(d)	7(c)	8(d)	9(c)	10(d)	11(a)	12(c)
Test # 21	1(d)	2(c)	3(b)	4(c)	5(c)	6(a)	7(a)	8(d)	9(b)	10(a)	11(a)	12(b)
Test # 22	1(a)	2(d)	3(a)	4(c)	5(a)	6(c)	7(b)	8(b)	9(a)	10(a)	11(a)	12(a)
Test # 23	1(b)	2(a)	3(b)	4(b)	5(c)	6(c)	7(b)	8(b)	9(a)	10(a)	11(a)	12(d)
Test # 24	1(d)	2(a)	3(a)	4(a)	5(c)	6(d)	7(b)	8(c)	9(c)	10(a)	11(c)	12(b)
Test # 25	1(a)	2(d)	3(c)	4(a)	5(c)	6(c)	7(c)	8(b)	9(b)	10(b)	11(c)	12(a)
Test # 26	1(d)	2(c)	3(c)	4(b)	5(a)	6(d)	7(b)	8(a)	9(a)	10(d)	11(a)	12(b)
Test # 27	1(b)	2(b)	3(a)	4(c)	5(d)	6(d)	7(b)	8(c)	9(d)	10(a)	11(b)	12(b)
Test # 28	1(c)	2(a)	3(b)	4(a)	5(c)	6(c)	7(c)	8(d)	9(b)	10(a)	11(a)	12(c)
Test # 29	1(c)	2(c)	3(d)	4(d)	5(d)	6(a)	7(a)	8(b)	9(d)	10(d)	11(c)	12(b)
Test # 30	1(b)	2(c)	3(b)	4(c)	5(a)	6(c)	7(b)	8(a)	9(d)	10(b)	11(c)	12(c)

Gaseous Exchange

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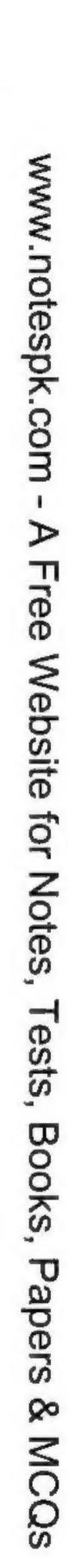
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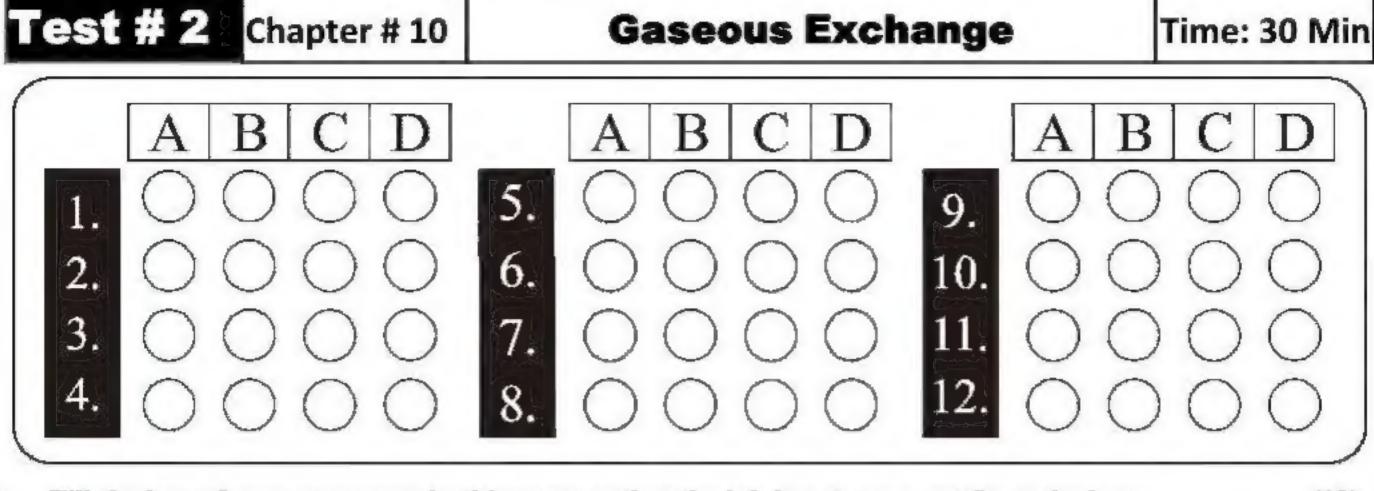
- (ii) What is Larynx? Wrtie its function.
- (iii) Write two bad effects of Smoking.
- (iv) What are the symptoms of Bronchitis?
- (v) How do stomata function during day and night?
- (vi) What is pneumonia? Write down its symptoms.
- (vii) How arteriosclerosis is caused?
- (viii) What is bronchitis?

Test # 1

Chapter # 10

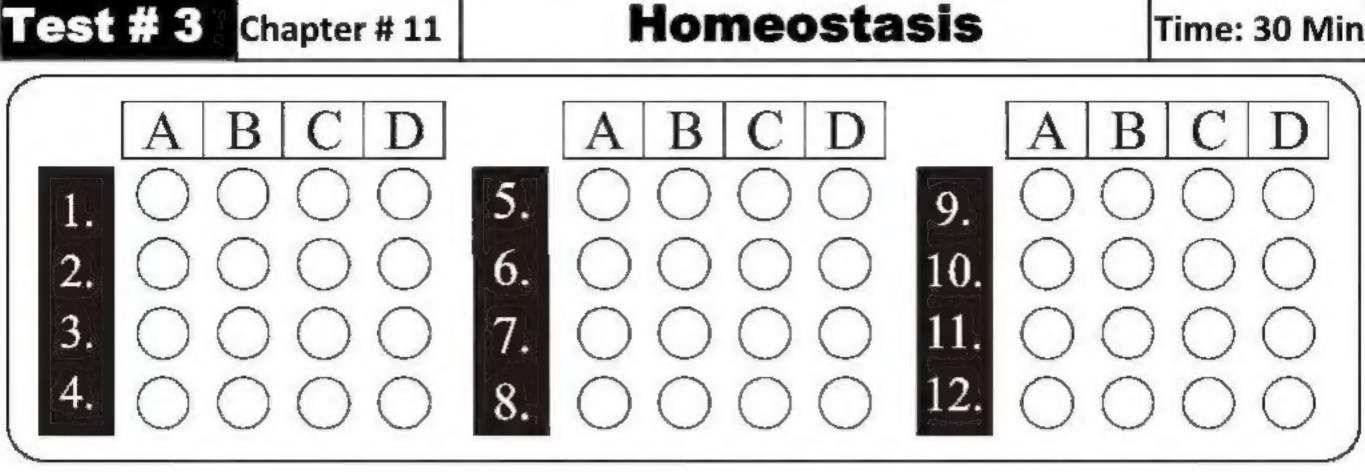
(ix) Write functions of hairs and mucus in the nose.





1-	Fill	the box of correct	t answ	er in this manner tha	t the in	k is not come out from	the bo	x. (12
(i)	Glo	ttis is the opening	of:					
	(a)	Pharynx	(b)	Larynx	(c)	Trachea	(d)	Epiglottis
(ii)	Wh	at type of blood v	esssels	surrounds the alveo	li:			
	(a)	Artery	(b)	Arteriole	(c)	Capillary	(d)	Vein
(iii)	Wh	ich brings deoxyg	erated	blood from heart in	to the lu	ings?		
	(a)	Pulmonary vein	(b)	Pulmonary Artery	(c)	Aorta	(d)	Wind pipe
(iv)	Glo	ttis is a narrow op	ening	at the floor of:				
	(a)	Nasal cavity	(b)	Nostril	(c)	Pharynx	(d)	Larynx
(v)	The	cavity in which l	ungs a	re located is called:				
	(a)	Thoracic cavity	(b)	Oral cavity	(c)	Buccal cavity	(d)	Abdominal cavity
(vi)	The	muscles of ribs a	re call	ed:				
	(a)	Smooth muscles	(b)	Cardiac muscles	(c)	Intercostal muscles	(d)	Costal muscles
(vii)	The	process of gaseou	is excl	nange involves:				
	(a)	Breakdown of C-H	bonds	to yield energy	(b)	Physical movement that	take air	in and out of body
	(c)	Getting oxygen fro	m the a	ir and removing carbon	dioxide	OTH		
	(d)	Transport of oxyge	n by th	e blood to different parts	s of the b	ody		
(viii	)Mo:	st of the gaseous e	xchan	ge in a leaf occurs th	rough:			
	(a)	Stromata	(b)	General surface	6 (c)	Cuticle	(d)	Lenticels
(ix)	Hov	v many bronchi a	re the	re in the air passagev	vay?			
	(a)	One	(b)	Two	(c)	Many	(d)	None
(x)	Wh	ere does the gased	us exc	hange occur in hum:	ans?			
	(a)	Pharynx	(b)	Trachea	(c)	Bronchi	(d)	Alveoli
(xi)	Wh	ich structure activ	vely he	lps in taking the air	out of lu	ings?		
	(a)	Nasal cavity	(b)	Bronchus	(c)	Bronchiole	(d)	Diaphragm
(xii)	The	primary chemica	d stim	ulus for breathing is	the cone	centration of:		
	(a)	Carbon dioxide in	blood		(b)	Oxygen in blood		
•		Carbon dioxide in			, ,	Oxygen in muscles		
2				following questions.				(18

- Write four symptoms of respiratory disorder Amphysema. (i)
- What is windpipe or trachea? Describe its structure.
- (iii) How passive smoking can be injurious to health?
- (iv) Differentiate between breathing and cellular respiration.
- What are pleural membranes? What is function of fluid present between pleural membranes?
- (vi) Differentiate between stomata and lenticels.
- (vii) What are lungs?
- (viii) Define Epiglottis. Write its function.
- (ix) What is difference between inhalation and exhalation?



Fill the box of correct answer in this manner that the ink is not come out from the box.

(12)

- What waste products are excreteed by kidneys? (i)
  - Urea, water & salts

Salts, water and carbon dioxide (b)

Urea & water

- Urea & salts (d)
- The two main functions of sweat are:
  - To keep the body cool and to remove excess proteins
- To keep the body warm and to filter the blood (b)
- To filter the blood and to remove waste products
- To remove waste products and to cool the body
- (iii) Which would NOT be present in the filtrate entering the Bowman's capsule of nephron?
  - (a) Water
- Calcium ions
- Blood cells
- (d) Urea
- (iv) During peritoneal dialysis the waste materials move from:
  - The abdomen to the dialysis fluid
- The dialysis fluid to the peritoneum blood vessels (b)
- The peritoneum blood vessels to the dialysis fluid
- The dialysis fluid to the abdomen
- Plants which grow in arid environment are called:
  - (a) Xerophytes (b) Mosses
- (vi) The maintenance of internal body temperature is called:

Excretion

(d) Algae

Digestion

- (a) Osmore-gulation (b) Thermore-gulation
- (vii) Approximate weight of a kidney is:

(a) 10g

15g

(c)

27g (d)

(viii)Secretions secreted by Conifers are called:

- (a) Resins
- (b) Gums
- Latex
- Mucilage

- (ix) Secretion of rubber plant is called:
  - Gums
- Mucilage
- Latex
- Resins
- Excretion of water through special pores present at the margin of leaves is called:
  - (a) Evaporation
- (b) Guttation
- Transpiration
- Sublimation

- (xi) Rubber plant excretes:
  - (a) Resin
- Mucilage
- Latex
- Rubber

- (xii) The core temperature of human body remains at about:
  - (a) 37"C
- 38" C
- 39" C
- 40° C

### Write short answers of the following questions.

- How process of filtration takes place in kindey? (i) Define homeostasis. Give an example. NOTESPK
- (ii)
- (iii) What is kidney transplant?
- Define nephron and write down the names of its parts.
- What does dialysis mean? Name its methods?
- (vi) What is renal tubules?
- (vii) What is peritoneal dialysis?
- (viii) Differentiate between 'Hydrophytes' and 'Xerophytes'. Give one example for each.
- (ix) What is role of skin in controling temperature of body?

Fill the box of correct answer in this manner that the ink is not come out from the box.

(12)

- Who is the writer of Encyclopeadia "Al-Tasrif".
  - (a) Abu-Al-Qasim
- (b) Al-Farabi
- (c) Jabir-bin-Hayan
- Aristotle
- Broad leaves with large number of stomata on the upperside are found in:
  - (a) Xerophytes
- (b) Hydrophytes
- (c) Halophytes
- Trees (d)
- (iii) In an adult man the average urine formation in a day is:
  - (a) 4 litre
- (b) 1.3 litre
- (c) 1.4 litre
- (d) 3 litre

- (iv) The functional unit of kidney is:
  - (a) Glomerulus
- (b) Bowman's capsule (c) Loop of Henle
- (d) Nephron
- (v) Urine is temporarily stored in which of these until it is released from body.
  - (a) Kidney
- (b) Ureter
- (c) Urinary bladder
- (d) Urethra
- (vi) Increases rate of reabsorption of water from nephrons.
  - (a) Oxytocin
- (b) Vasopressin
- (c) Paratharmone
- Glucagon

- (vii) The human urinary system consists of:
  - Rectum, lungs, kidneys, ureters
- Kidneys, ureters, urinary bladder (b)
- Skin, liver, lungs, kidneys
- Kidneys, ureters, urinary bladder, urethra (d)
- (viii) Which organ is responsible for filtering the blood?
  - (a) Intestine
- Brain
- (c) Stomach
- Kidney
- (ix) The tube between kidney and urinary bladder is the: Renal tubule
  - (a) Ureter
- (b) Urethra
- 'Body balance' of water, salts, temperature and glucose is termed as:
- Nephron (d)
- Tubular secretion (a) Excretion (c) Homeostasis Re-absorption (xi) Which is the correct order for the path taken by urine after it leaves the kidneys?
  - (a) Urethra, bladder, ureters
- Bladder, ureters, urethra
- (c) Ureters, bladder, urethra
- Bladder, urethra, ureters (d)
- (xii) What is the function of the ureter?
  - To store urine

- To carry urine from the kidney to the bladder
- (c) To carry urine out of the body
- To remove waste from the blood

### Write short answers of the following questions.

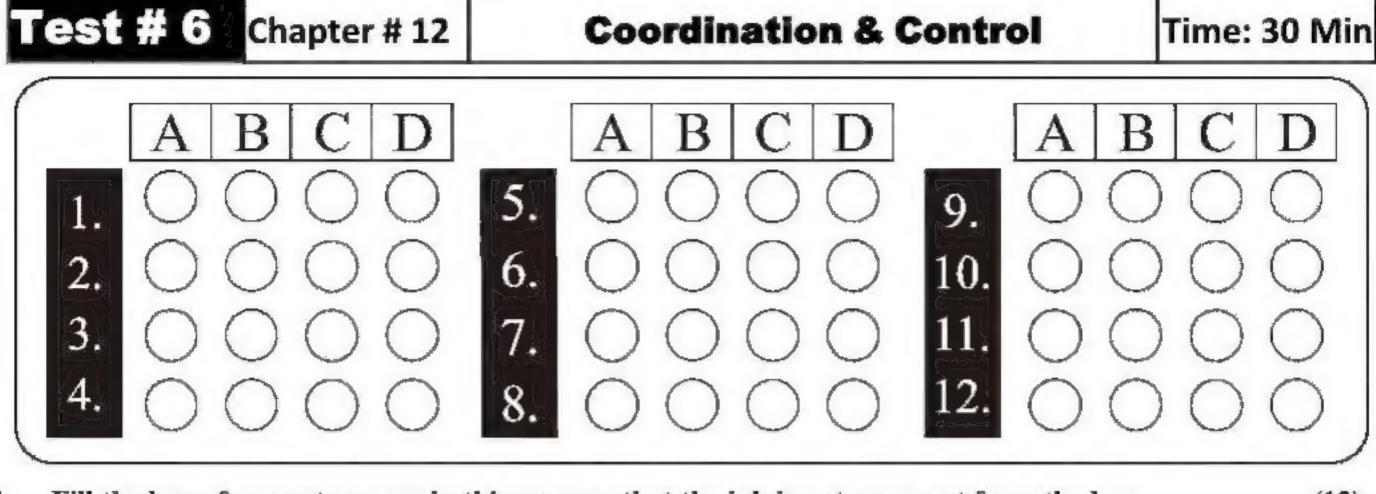
- Differentiate between osmoregulation and thermoregulation. (i)
- What is lithotripsy method of removing stones from kidneys?
- (iii) What is the size and weight of human kidney?
- (iv) Write contribution of Abu Al-Qasim Al-Zahravi in biology.
- Differntiate between guttation and transpiration.
- (vi) What are renal cortex and renal medula?
- (vii) What do you mean by kidney stone?
- (viii) What are Halophytes?
- (ix) How kidneys work when there is shortage of water in body fluids?

Test # 5 Chapter # 12

**Coordination & Control** 

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	T7811 41	ha hav of sauva	at amoun	an in this ma	mean that	t the ful	e la not como o	ut fuom ti	ao has	(12)
1- (i)		he box of correction is NOT a part of			nner tha	the mi	is not come of	ut from ti	ie box.	(12)
(0)		Pons	(b)	Medulia oblo	ngata	(c)	Cerebrum	(d) Cere	bellum	
(ii)	, ,	u look at an in	tact hu					, ,	convoluted oute	r surfac
	This	is the;								
	(a)	Cerebrum	(b)	Cerebellum		(c)	Pons	(d)	Medulla oblongata	a
(iii)	Insul	in and glucago	are pi	oduced in th	ie:					
	(a)	Hypothalamus	(b)	Anterior pitui	itary	(c)	Liver	(d)	Pancreas	
(iv)	All of	f these are horn	nones e	xcept:						
	(a)	Insulin	(b)	Thyroxin		(c)	Glucagon	(d)	Pepsinogen	
(v)	Lack	of harmone so	matotro	phin causes	disease:					
		Acromegaly	(b)	Dwarfism		(c)	Diabetes	(d)	Goiter	
(vi)	How	many types of	nerves a	are classified	on the b	asis of p	property of axo	ns?		
	(a)		(b)			(c)	4	(d)	5	
(vii)		human eye, the	re are r		. lac.		1			
	, ,	100	(b)	125		(c)	2300	(d)	225	
(viii		tors include:								
		Only muscles				03	Only glands			
/h h		Muscles and glan				5 X(d)	Brain			
(ix)		h is responsible	-		ice pitch			(1)	C1	
4.5		Estrogen	(b)	Progestron	0	(c)	Testosteron	(d)	Glucagon	
(x)		me parts of the			s Cell Do		-		Manufact	
(t)	, ,	Nerves	(b)	Tissues		(c)	Ganglion	(d)	Muscles	
(XI)		iditory Canal's			produce		Anditon Phid	(4)	Nerve impulse	
(vii)		Wax h hormone is s	(b)	Blood in case of an	norganev	(c)	Auditory Fluid	(d)	Nerve impulse	
(XII)		Oxytocin	(b)	Thyroxin	nergency	(c)	Adrenaline	(d)	Calcitonin	
8	(4)		(0)	THYTOXIII		(0)	Adicianic	(4)	Calcholin	
2-	Write	e short answers	of the	following au	estions.					(18)
(i)		e coordinators.								(10)
		is difference be		•		ter-Neur	ons?			
		disorders of eye			ESPK	er ryeur	SC 8 2 6 7 8			
, ,		is the cause of I		m?						
` ′		e nerve. Differe			and motor	nerves				
, ,		is meant by me								
, ,		down five com	_				invitorio;			
1		e response and			on activiti	•				
LATTE	ATTENDED IN	e response and l	Stre all t	wanthis.						

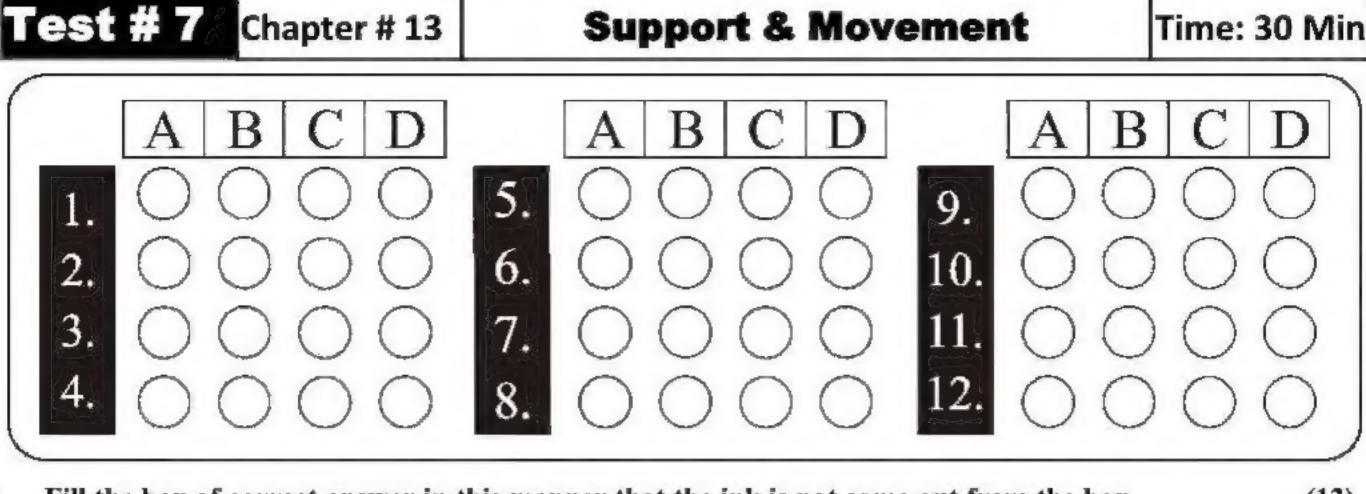
(ix) Write down two important function of spinal cord.



	77171								(12)
1-		the box of corre				ne ink is not co	me out fr	om the box.	(12)
(i)	Wh	ich type of coord		is found in plai	nts?				
	(a)	Chemical coordin			(b)	Mechanical cod			
	(c)	Nervous coordina	ition		(d)	Electrical coord	dination		
(ii)	If a	problem exists i	n the n	iedulla oblongat	a of brai	in, which func	tion of the	body will be affecte	d:
	(a)	Intelligence	(b)	Pain	(c)	Heart beat	(d)	Thinking	
(iii)	Wh	ich hormone cau	ises con	traction of uteri	us at the	time of birth?			
	(a)	Thyroxin	(b)	Vasopressin	(c)	Oxytocin	(d)	Calcitonin	
(iv)	Wh	ich part of huma	an eye o	ontains blood v	essels?				
	(a)	Retina	(b)	Choroid	(c)	Iris	(d)	Pupil	
(v)	Wh	ich neurons con	cucet in	npulses from CN	S to effe	ectors:			
	(a)	Motor	(b)	Inter	(c)	Sensory	(d)	Hormones	
(vi)	Len	igth of Spinal Co	rd is:						
	(a)	20cm	(b)	40cm	(c)	60cm	(d)	10cm	
(vii)	Pro	cesses that carry	nerve	impulses away f	rom the	cell body are	called:		
	(a)	Axons	(b)	Dendrites	(c)	Synapses	(d)	Myelin sheath	
(viii	)The	e portion of the n	ervous	system that is in	nvolunta	ry in action:			
	(a)	Somatic nervous	system		(b)	Motor nervous	system		
	(c)	Autonomic nervo		m	(d)	Sensory nervou			
(ix)		ich neurons are			04				
. ,	(a)	Sensory neurons	-		(b)	Motor neurons	only		
	(c)	Sensory and moto		s both	(d)	Interneurons or			
(x)					. ,			the senses and the	memory
(1)	the		an resp	onsidic for mus	sere mov	ement interpr	ctution of	the senses and the	memor y
		Pons	(h)	Medulla oblonga	ita (a)	Cerebrum	(d)	Cerebellum	
(4)	(a)		(b)						
		art from hearing		other major bou		-	u by the e	ar:	
		Hormone secretic				Body balance			
	(c)	Reduction in nerv			(d)	All of these			
(xii)	The	myelin sheath i			whishe w		- 45		
6	(a)	Nodes of Ranvier		Axons	(c)	Dendrites	(d)	Schwann cells	
3				MOTES					

### 2- Write short answers of the following questions.

- (i) How ears maintain the balance of body?
- (ii) From where thyroxin harmone is secreted and what is its function?
- (iii) What is paralysis? Write its two causes.
- (iv) Write pupil reflex in dim and bright light.
- (v) Define reflex action and reflex arc.
- (vi) Write two functions of oxytocin harmone.
- (vii) Differentiate between receptors and effectors.
- (viii)State dendrites and their function.
- (ix) What are aqueous and vitreous humour?



1- Fill the box of correct answer in this manner that the ink is not come out from the box.

(12)

- (i) What do some bones produce?
  - (a) Mucous
- (b) Hormones
- (c) Oxygen
- (d) Blood cells

- (ii) How would you define skeletal system?
  - (a) All the bones in body

- (b) All the muscles and tendons
- (c) All the body's organs, both soft and hard tissues
- (d) All the bones in body and the tissues that connect them
- (iii) Find the INCORRECT statement.
  - (a) Bone is where most blood cells are made
- b) Bone serves as a storehouse for various minerals
- (c) Bone is a dry and non-living supporting structure
- (d) Bone protects and supports the body and its organs
- (iv) The purpose of rib cage is to:
  - (a) Protect the stomach

- (b) Proteet the spinal cord
- (c) Protect the heart and lungs
- (d) Provide an object to which the lungs can attach
- (v) The cells of cartilage are called:
  - (a) Chondrocytes
- (b) Osteocytes
- (c) Collagen
- (d) Osteo clast

- (vi) Nose and larynx and made up of:
  - (a) Hyaline cartilage

(b) Elastic cartilage

(c) Fibrous cartilage

- (d) Bone
- (vii) Deposition of uric acid in joints is due to:
  - (a) Osteoarthritis
- (b) Gout
- (c) Osteoporosis
- (d) Rheumatoid Arthritis

- (viii)An example of ball and socket joint is:
  - (a) Elbow joint
- (b) Shoulder joint
- (c) Knee joint
- (d) Finger joint

- (ix) Which bone is part of Appendicular Skelton:
  - (a) Skull
- (b) Vertebral column
- (c) Sternum
- (d) Pectoral / shoulder girdle

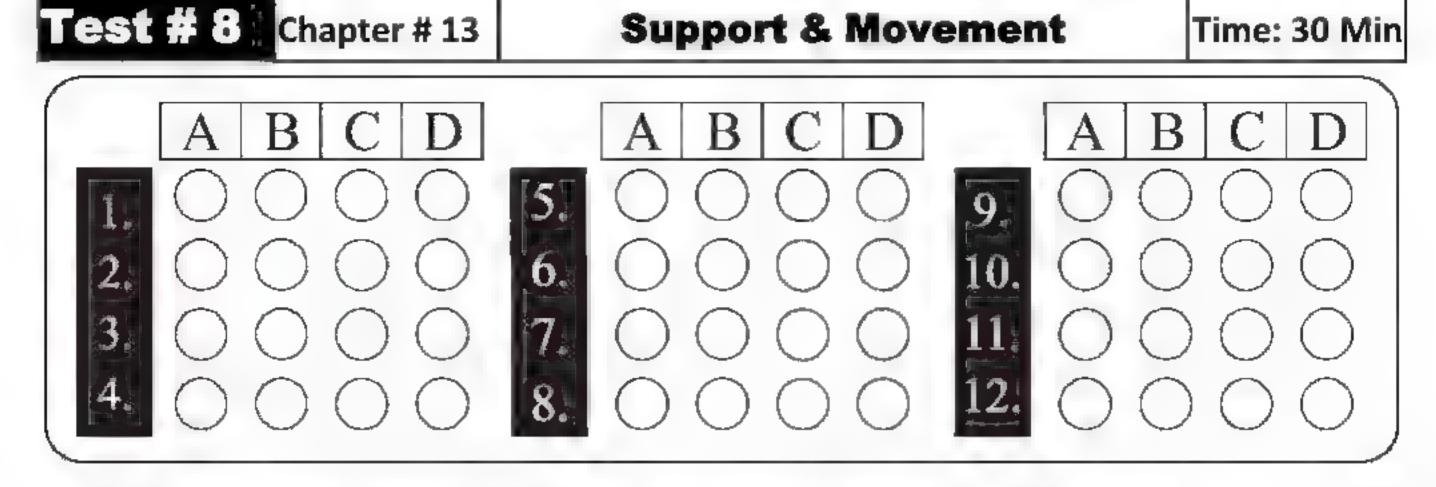
- (x) An example of immoveable joints is:
  - (a) Joint of skull
- (b) Hip joint
- (c) Shoulder joint
- (d) Elbow joint

- (xi) Babies are born with soft bones:
  - (a) 200
- (b) 206
- (c) 256
- (d) 300

- (xii) Ball and Socket joints all movements is:
  - (a) One direction
- (b) Two direction
- (c) All directions
- (d) No direction

### 2- Write short answers of the following questions.

- (i) Write down two disorders along with one reason of each of human Skeletal.
- (ii) Define Hinge Joint and give one example.
- (iii) Differentiate between compact bone to that of spongy bone.
- (iv) Define joints. Also write its types.
- (v) What are skeleton and endoskeleton?
- (vi) What are biceps and triceps.
- (vii) Define locomotion and movement.
- (viii)State elastic and fibrous cartilage.
- (ix) Define antagonists.



Fill the box of correct answer in this manner that the ink is not come out from the box.

(12)

- The interior of bone is soft and porous which is called: (i)
  - (a) Compact bone
- (b) Spongy bone
- Bone marrow (c)
- Cartilage

- Vertebral column protects:
  - (a) Heart
- (b) Spinal cord
- (c) Brain
- (d) Lungs

- (iii) An adult person skeleton has hard bones:
  - (a) 406
- (b) 306
- (c) 206
- 106 (d)

- (iv) Mature bone cells are called.
  - (a) Compact bone
- (b) Osteocytes
- Cartilage
- (d) Fibrous cartilage

- Tendons and ligaments are bands of:
  - (a) Connective tissue

Nerve tissue

- (vi) Number of cranial bones in human skeleton is.

- (vii) Find the ball-and-socket joint:
  - Joint in the finger bones

Joint of neck and skull bones

Muscular tissue

Epidermal tissue

Joint at elbow

- (d) Upoint at pelvic girdle and leg bones
- (viii)All these are the parts of axial skeleton of humans except:
  - (a) Ribs
- (b) Sternum
- (c) Shoulder girdle
- Vertebral column
- (ix) The disorders in which there is an accumulation of uric acid in joints:
- (b) Rheumatoid arthritis
- (c) Osteoporosis
- Osteo-arthritis (d)

- What is correct about tendons?
  - Tendons are flexible and they join muscles with bones
  - Tendons are non-elastic and they join bones with bones
  - Tendons are non-elastic and they join muscles with bones
  - Tendons are flexible and they join muscles with muscles
- (xi) How many bones make our skull?
  - (a) 14
- 22
- 24 (c)
- 26 (d)

- (xii) What are the main components of a bone?
  - Marrow, spongy bone, wax

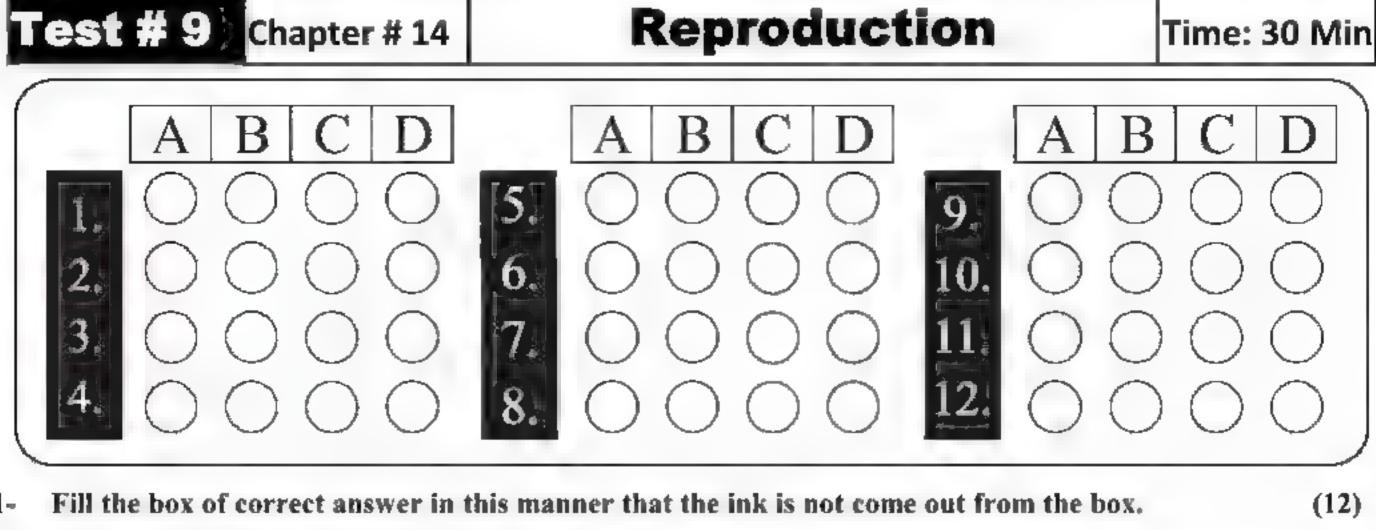
Marrow, compact bone, wax

(c) Campact bone and marrow

(d) Compact bone, spongy bone, marrow

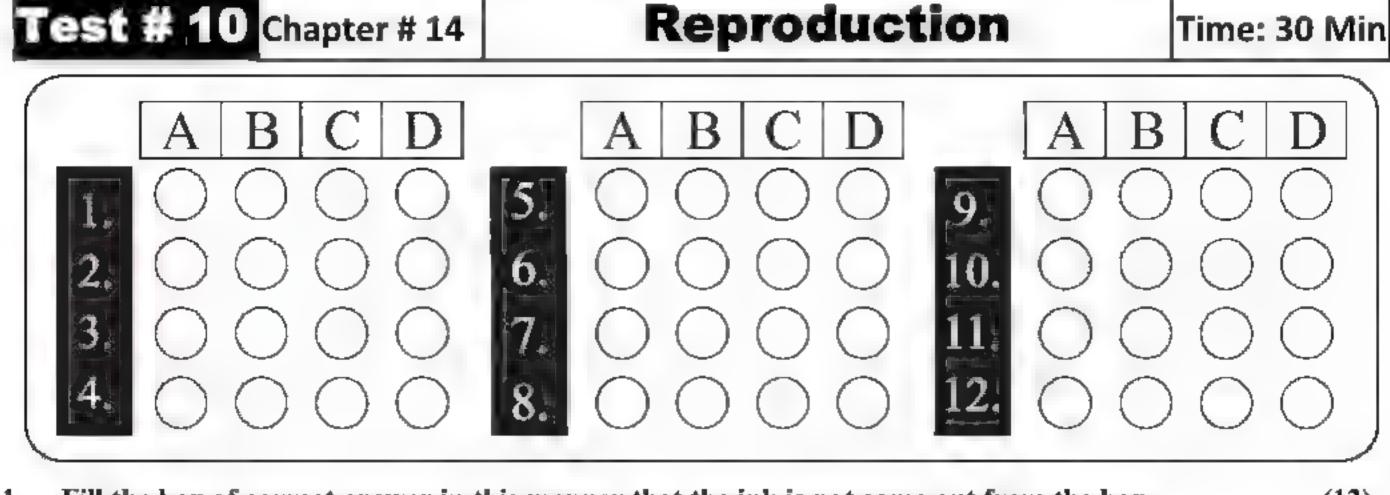
### Write short answers of the following questions.

- Write the names of bones of human appendicular skeleton. (i)
- What are tendons? What is their role in the body?
- (iii) How osteo arthritis is different from rheumotoid arthritis?
- Define ball and socket joint. Give one example also.
- What is the role of skeletal system in body?
- (vi) Wrtie about structure of bone.
- (vii) Define Cartilage. Write names of its two types.
- (viii)Differentiate between origin and insertion of a Skeletal Muscle.
- (ix) What are hinge joints? Write two examples.



1-	Fill	the box of correct	t answ	er in this manner that	the in	k is not come out from t	he bo	ox. (12	!)
(i)	Aft	er fertilization in <sub> </sub>	plants.	, the fruit develops from	m:				
	(a)	Ovule wall	(b)	Ovary wall	(c)	Petals	(d)	Anther	
(ii)	Wh	ich part of the fer	nale r	eproductive system rec	eives e	gg cells from the ovary	?		
	(a)	Fallopian tube	(b)	Uterus	(c)	Vagina	(d)	Cervix	
(iii)	Ins	side testes the sper	ms ar	e produced in:					
	(a)	Vas deferens	(b)	Sperm duct	(c)	Seminiferous tubules	(d)	Collecting ducts	
(iv)	Wh	ich of these cells b	nas ha	ploid number of chron	nosom	es?			
	(a)	Spermatogonium	(b)	Primary spermatocyte	(c)	Secondary spermatocyte	(d)	All ot these	
(v)	In v	which of the follow	ving a	sexual reproduction m	ethods	an organism divides in	to tw	o:	
	(a)	Regeneration	(b)	Budding	(c)	Binary fission	(d)	Fragmentation	
(vi)	Wh	ich of the followin	ıg stru	ctures present in the p	ollen (	tube after pollination:			
	(a)	Tube nucleus and t	wo spe	rms	(b)	Tube nucleus and one spe	erms		
	(c)	Two tube nuclei an	d one s	sperm	(d)	Two tube nuclei and two	sperm	S	
(vii)	A p	rocess in which go	enetic	material of one genera	tion is	transmitted to next is k	nowi	as:	
	(a)	Reproduction	(b)	Respiration	(c)	Reduction	(d)	Circulation	
(viii	Bin	ary fission is seen	in:						
	(a)	Yeast	(b)	Planaria	_^(&)	Hydra	(d)	Corals	
(ix)	Fro	m which part of t	he em	bryo root is formed? 6	1				
	(a)	Plumule	(b)	Cotyledons	(c)	Radicle	(d)	Epicotyle	
(x)	The	main method of	reproc	luction in sponges, hyd	lra and	d corals is:			
	(a)	Fragmentation	(b)	Spores	(c)	Regeneration	(d)	Budding	
(xi)	Ova	ary change into af	ter rip	en:					
	(a)	Into seed	(b)	Into fruit	(c)	Into flower	(d)	Into nectar	
(xii)	Spe	erms and fluid coll	ective	ly called:					
	(a)	Hormones	(b)	Semen	(c)	Follicle	(d)	Scrotum	
X									
2-	Wr	ite short answers	of the	following questions.				(18	i)
(i)	Def	ine alternation of g	enerati	ion in plants					

- What is the difference between cutting and grafting? (11)
- Differentiate between epigeal and hypogeal germination.
- Define multiple fission and give an example.
- Define Budding and give an example.
- (v1) What are asexual and sexual reproduction?
- (vii) Define placenta.
- (viii) What is seed coat? Write its function.
- (ix) Write two conditions necessary for seed germination.

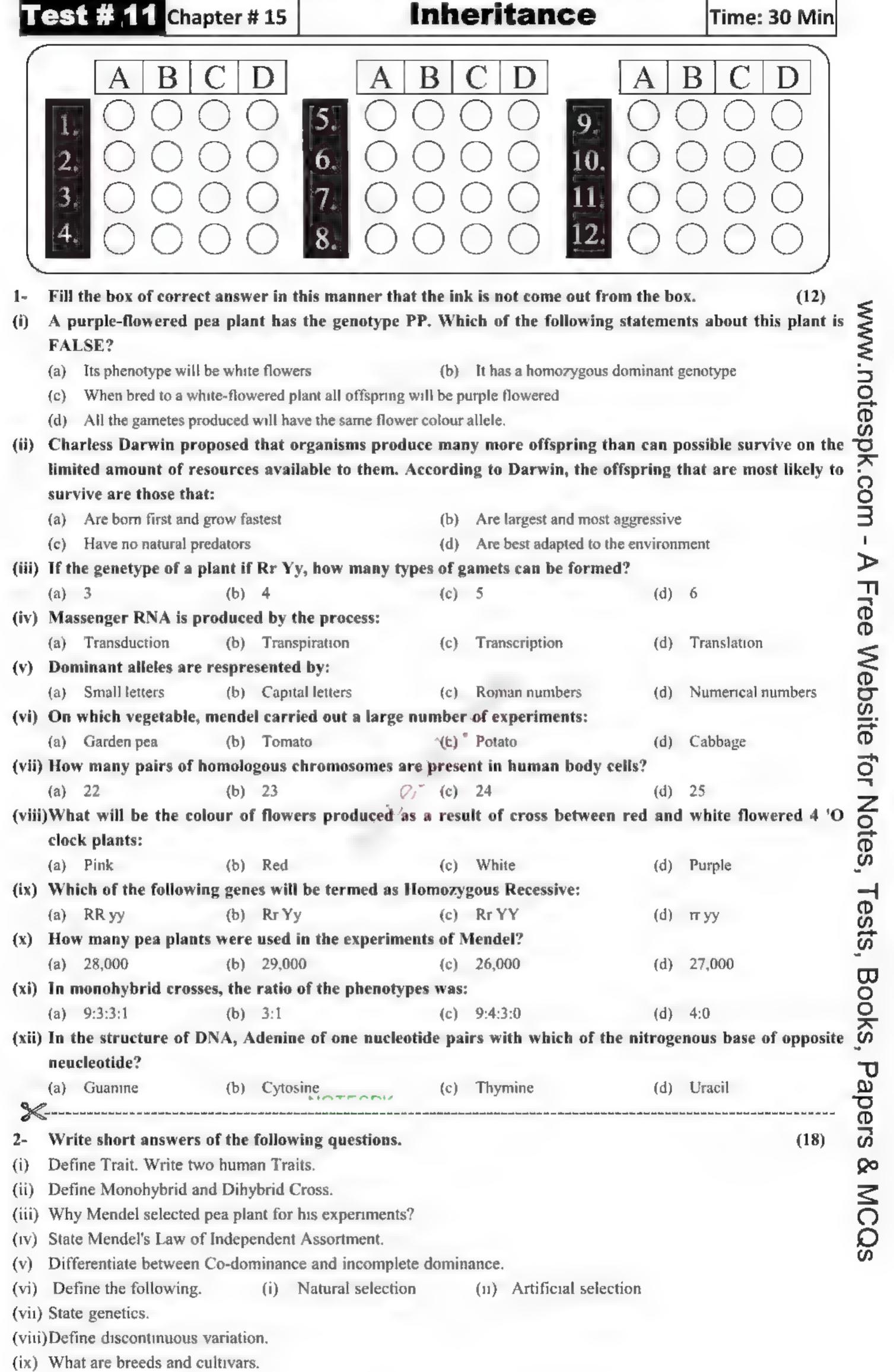


Fill the box of correct answer in this manner that the ink is not come out from the box. (12)In which of the following animals groups, external fertilization takes place: (a) Reptiles (b) Amphibians Birds (d) Mammals Pollen grains are produced in another of flower by: (a) Meiosis Multiple fission Binary fission (b) Mitosis (d) (iii) If a new born baby feeds on mother's milk, as a result of which productio of mother's milk will: (a) Decrease Stop (d) Continue with intervals Increase (c) (b) (iv) Tulips reproduce by .....: Natual vegetative propagation Artificial vegetative propagation Cutting Grafting (c) A sexual reproduction is yeast takes place by.....: Binary fission (a) Budding (b) Fragmentation Spore formation (vi) Which plant reproduces by stem tubers? (d) Ginger (vii) Growing an entire new plant from part of the original plant is called: (a) Budding (b) Regeneration Vegetative propagation (c) Fragmentation (viii) Rhizopus reproduces asexually by: Spore formation Endospore formation (a) Binary fission (b) Budding (ix) A corm develops into new garlic plant. This is the process of: (a) Vegetative propagation Regeneration Meiosis Gametogenesis Which is NOT an advantage of grafting? The graft is identical to the parent plant Grafting allows the propagation of seedless fruits The graft combines the characteristics of two plants Grafting may allow for the faster production of desirable fruits Pollination is the transfer of pollens from: (xi) Anther to stigma (b) Stigma to anther Sepal to petal Petal to sepal (xii) Double fertilization in plants means:

- (a) Fusion of two sperms with two egg cells
- (b) Fusion of one sperm with egg cell and other sperm with fusion nucleus.
- (c) Fusion of tube nucleus with fusion nucleus and sperm with egg cell
- (d) Fusion of tube nucleus with fusion nucleus and sperm with egg cell.

### 2- Write short answers of the following questions.

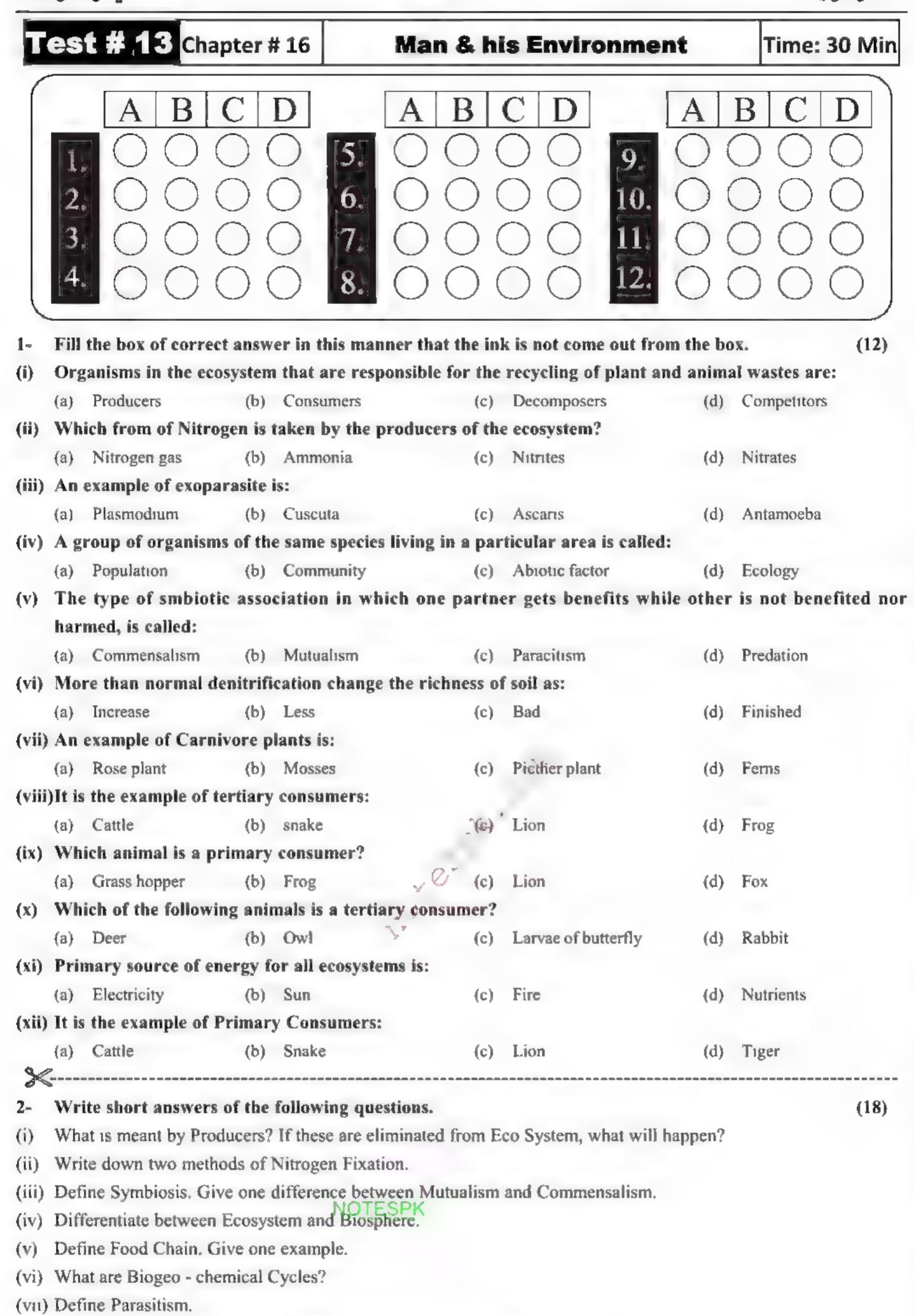
- (i) What are endospores? Write names of two types of bacteria which forms such spores.
- (ii) How new plants are produced by grafting? Give one example.
- (11i) Define stem tuber. Give two examples.
- (iv) Define two types of pollination.
- (v) What is the difference between regeneration and binary fission? Give example.
- (vi) How vegetative propagation take place by leaf?
- (vii) Describe the process of spore formation in "Rhizopus".
- (viii) What is Semen? Name two glands which pour their secretions into it.
- (ix) Define Tissue Culture and Cloning.



Ц	est # 12 Chapter	# 15	Inh	eri	tance		Time: 30 Min
	A B C O O O O O O O	<b>D</b>	A B  5. 0 0  6. 0 0  7. 0 0  8. 0 0	<u>c</u>	D	A ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	B C D O O O O O O
1-	Fill the box of correct answ	ver in t	his manner that the i	nk is n	ot come out from	the bo	ox. (12)
(i)	If two plants having geno		Rr" are crossed with	h eacl	other, what per-	centag	ge of newly produce
	plants will have genotype	"rr"?					
	(a) 25%	. /	50%	(c)	75%	(d)	100%
(ii)	Three alleles $I^A, I^B$ and $i$	control	l human blood group	. Wha	at is the blood gro	up of	a person having two
	alleles ii ?	41.5	DI 10 D	4.5	DI 10 15	4.5	51 10 0
/**** <u>\</u>	(a) Blood Group A	. ,	Blood Group B	(c)	Blood Group AB	(d)	Blood Group O
(m)	Example of co-dominance		DI I D		DI I AD	(1)	
	(a) Blood group A		Blood group B		Blood group AB	(d)	Blood group O
(IV)	Term "artificial selection"		-			4.0	Al D I D'
<i>(-</i> )	(a) Aristotle	(b) '	Theophrastus	(c)	C.D. Buffon	(d)	Abu Rayhan Biruni
(v)	It is a genetic material:	41.5	DALA	4	. DN14	7.15	- DD14
(1)	(a) DNA	(b) ]		` "	t.RNA	(d)	r.RNA
(VI)	James Watson and Francis					(4)	1000
/!!\	(a) 1953	(b)		. ,	1933	(d)	1922
(vn)	An organism's expressed p	·					
/121°	(a) Genotype		Phenotype	(c)	Karyotype	(d)	Physical type
(viii	An organism has two diffe			4			*T
GaA.	(a) Homozygous		Heterozygous	1	Hemizygous		Homologous
(ix)	In the cross-pollination be			-	-		
	where green pod colour is	gomina g	int, the resulting ons			in be:	
	(a) 1/4 green, 3/4 yellow			(b)	All yellow		
(m)	(c) 1/4 yellow, 3/4 green	anant le	indo of comptoe on in	(d)	All green	AAbb	aan nuaduan?
(x)	How many genetically diff						
(v.t\	(a) 1 Which of the following sta	(b)		(C)		(d)	0
(XI)			0 00			2000	uence of DNA
	• •			(b)	Genes consist of lo	ığ sedi	delice of DNA
	<ul><li>(c) A gene contains informat</li><li>(d) Each cell contains a single</li></ul>			IKI			
(vii)	(d) Each cell contains a single Mendel's primary contribu			f inho	ritance was:		
(AII)	(a) The idea the genes are for			(b)	Explanation of the	nattern	s of inhantance
	(c) The discovery of alleles	uid on c	inomosomes	(0)	Explanation of the	Jaccon	s of innernance
		tione cor	stained in DNA are for a	rotoin (	amthecic		
9	(d) Determining the information	HOIS COI	italied in Divit are for p	totem s			
7	Write short encuers of the	follow	ing anactions	<b>_</b>			(19)
<b>2-</b>	Write short answers of the Define alleles. Give one exa		mg questions.				(18)
(i)		•	of plants produced as	e a roc	ult of evere between	an n te	ne brood round coods
(ii)	What will genotype and phoplant and true breed wrinkles			s a 168	an or closs betwee	ar a u	de breed round seede
(111)	Plant and true breed wrinkles		•				
, ,	Describe two main sources of			osah -	ning ava museaut in L	11120.5	hads astip
	What is meant by homologo			-	airs are present in h	นเทลท	body cent?
	How do variations bring abo		*				
, ,	What is the difference between		sempuon and translatio	117			
(AII)	Define genotype and phenot	ype.					

(ix) What will be Genotype of plants produced as a result of cross between two plants having Genotype Rr?

(viii) What is selective breeding? Give an example.



(ix) Define food chain and food web.

(viii)From where producers get their energy and in which form they store it?

Time: 30 Min

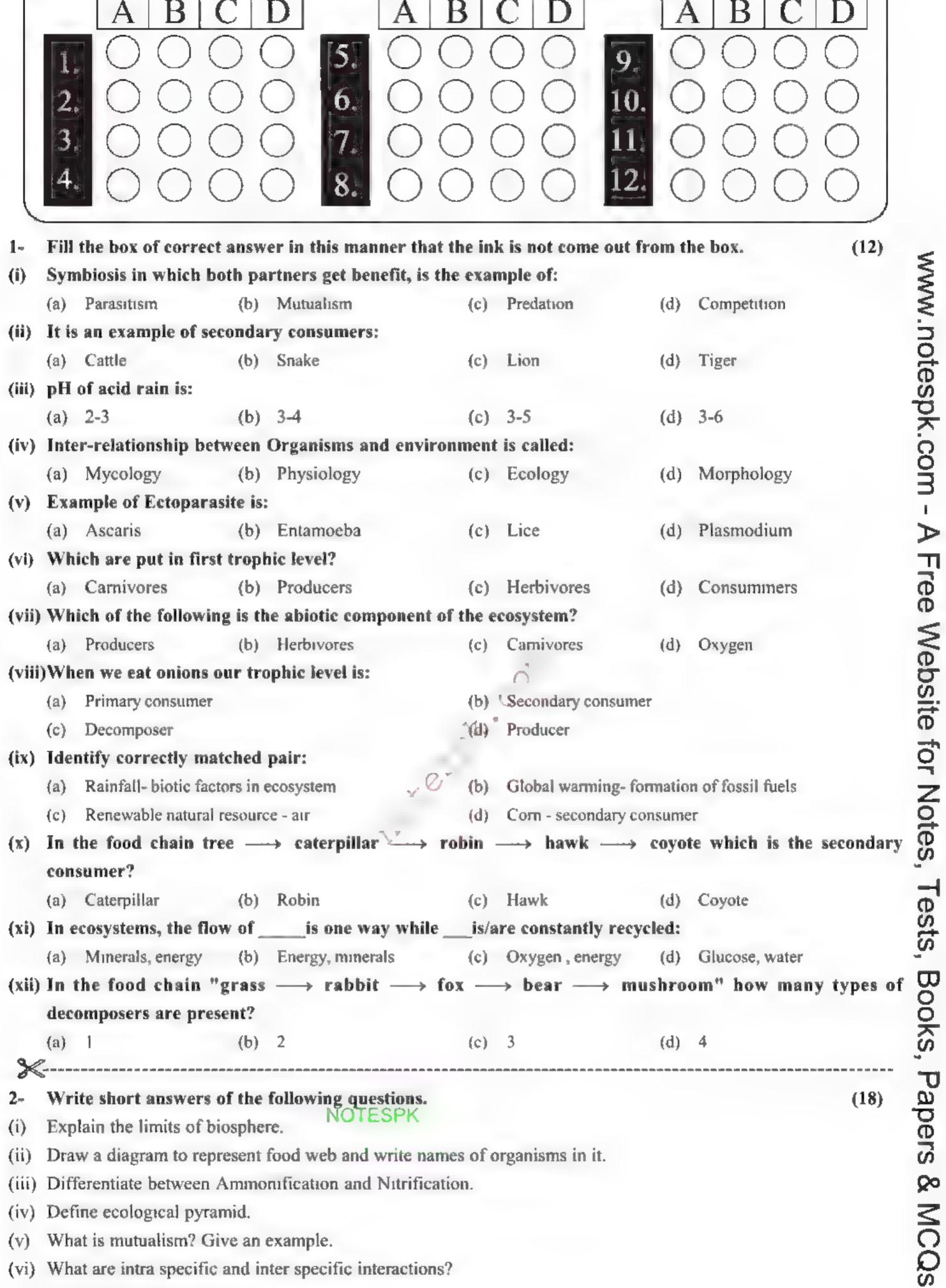
Test # 14 Chapter # 16

(vii) Describe global warming.

(viii) What are the effects of global warming?

(ix) What is environment friendly fuels?

**Man & his Environment** 



# Test # 15 Chapter # 17

# **Biotechnology**

ABCD	ABCD	A B C D
2. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5. 0 0 0 0 6. 0 0 0 0 7. 0 0 0 0 8. 0 0 0 0	9. 0 0 0 0 10. 0 0 0 0 11. 0 0 0 0 12. 0 0 0

1-	Fill	the box of correct	answ	er in this manner	that t	he ink is not come	out fr	om the box.	(12)
(i)	To	preserve fruits, ve	getabl	les & pickles we ac	dd:				
	(a)	Water and yogurt	(b)	Salt and acid	(c)	Flour and salt	(d)	Onion and garlic	
(ii)	Aπ	enzyme produced	by ge	netically modified	orgai	usms used to brea	k up b	plood clots is called:	
	(a)	Lipase	(b)	Amylase	(c)	Urokınase	(d)	Peptidase	
(iii)	Thi	s product is used i	n the	production of soap	ps.				
	(a)	Formic acid	(b)	Acrylic acid	(c)	Ethanol	(d)	Glycerol	
(iv)	In t	the first step of gly	colysi	s, one molecule of	gluco	se is broken down	into t	wo molecules of:	i
	(a)	Sitric acid	(b)	Lactic acid	(c)	Pyruvic acid	(d)	Formic acid:	
(v)	A h	ormone produced	by ge	netically modified	organ	nisms, used to cur	e canc	er of brain and lungs, is	:
	(a)	Insulin	(b)	Thymosin	(c)	Thyroxin	(d)	Anti diuretic hormone	
(vi)	Wh	ich one is ferment	ed foo	od?					
	(a)	Wheat flour	(b)	Powdered milk	(c)	Vitamins	(d)	Yogurt	
(vii)	Thi	s acid is used in E	lectro	plating:					
	(a)	Formic acid	(b)	Acrylic acid	(c)	Ethanol	(d)	Glycerol	
(viii	)Ins	ulin is used by pati	ients o	of:					
	(a)	Hepatics	(b)	Cancer	(c)	AID\$/	(d)	Diabetes	
(ix)	The	complete map of	huma	in genome was pul	blishe	d'in:			
	(a)	2002	(b)	2004	(c)	<b>2006</b>	(d)	2008	
(x)	Thi	s product is used i	n the	production of vine	ger a	nd beverages:			
		Formic acid		Acrylic acid _ ()		Ethanol	(d)	Glycerol	
(xi)	Wh	en was the work o	n Gei	netic Engineering	starte	d:			
	(a)	1930	(b)	1940	(c)	1944	(d)	1970	
(xii)	Fur	igi used in alcoholi	ic feri	mentation is called	l:				
	(a)	Saccharomyces cer	visine		(b)	Basidio-myceter			

(d) Algin

## Write short answers of the following questions.

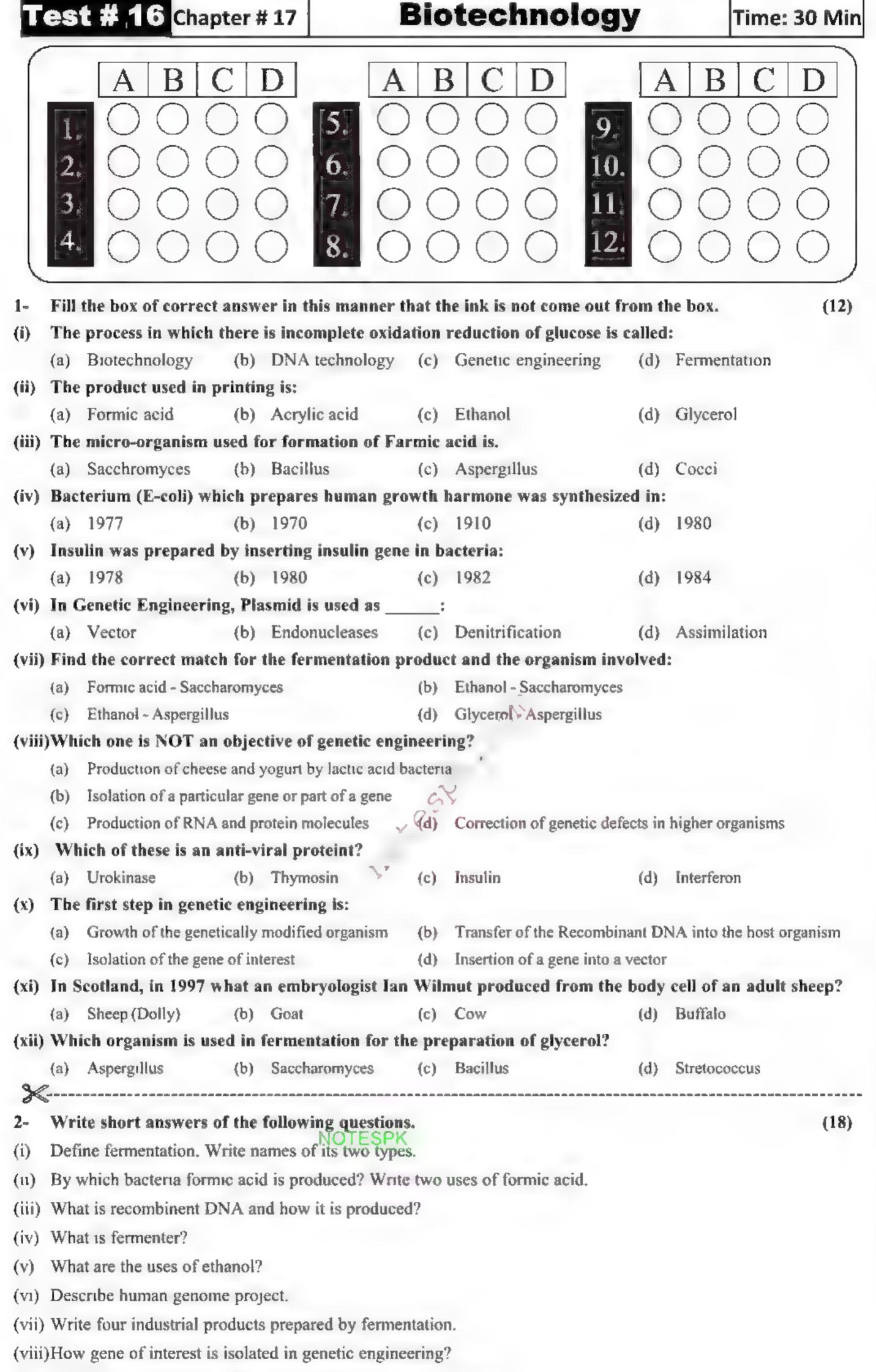
(18)

- Define biotechnology and also give its two uses. (i)
- Write two advantages of using Fermenters. (11)
- Write two uses of glycerol.

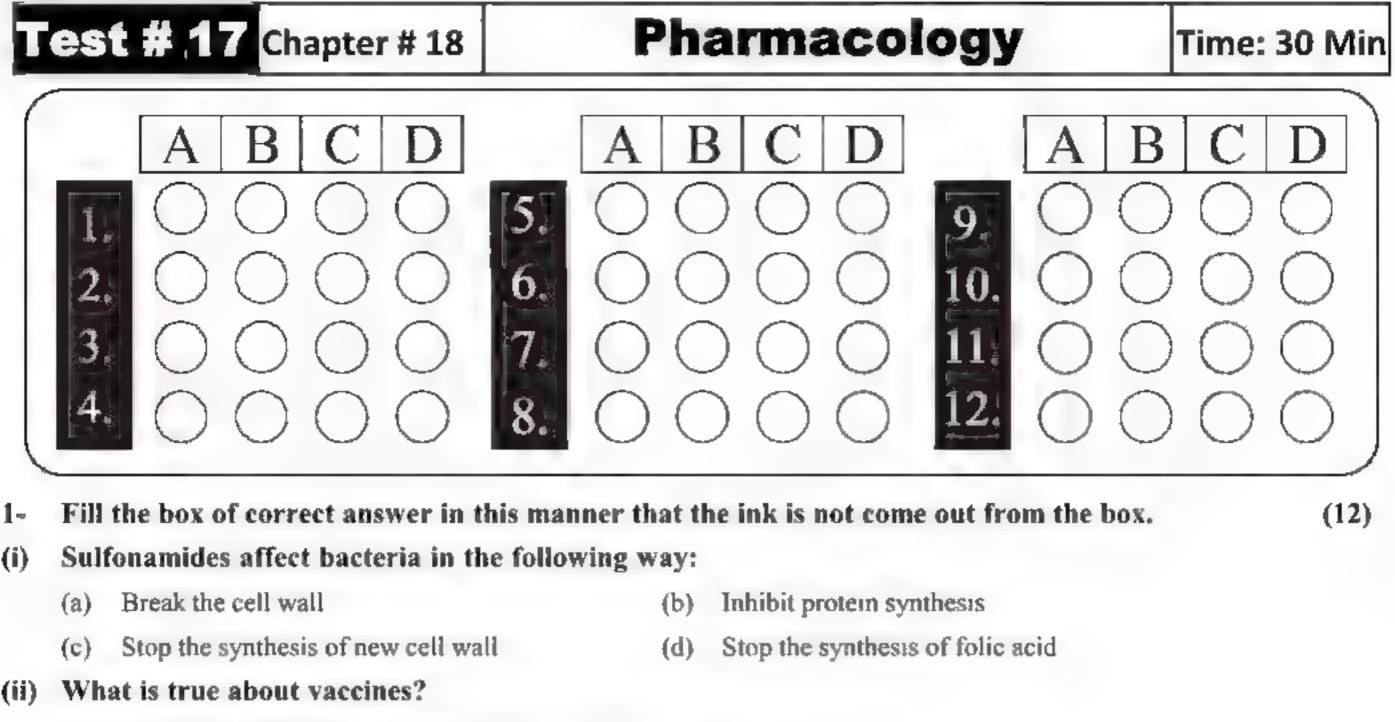
Zygomycetes

**NOTESPK** 

- Define glycolysis and name its product.
- Write down name of four products prepared through genetic engineering.
- Define alcohlic and lactic acid fermentation
- (vii) Write down any two objectives of genetic engineering.
- (viii) Write down any two main achievements of genetic engineering.
- (ix) What is the role of fermentation in beverage products?



(ix) What is meant by Single Cell Protein? How are these produced?



1-	Fill	the box of correct	answ	er in this mann	er that tl	ne ink is not com	e out fr	om the box.	(12
(i)	Sulf	fonamides affect ba	cteri	a in the following	ng way:				
	(a)	Break the cell wall			(b)	Inhibit protein syr	nthesis		
	(c)	Stop the synthesis of	fnew	cell wall	(d)	Stop the synthesis	of folic	acid	
(ii)	Wh	at is true about vac	ccine	s?					
	(a)	Protect against the fi	uture :	viral and bacterial	infections				
	(b)	Treat the existing ba	cteria	l infections only					
	(c)	Treat existing infect	ion an	d also protect aga	inst future	infections			
	(d)	Protect against viral	infect	ions only					
(iii)	Сер	halosporins is a gr	oup (	of antibiotics. W	hich par	rt of bacterial cel	ll is des	troyed by these antib	oiotics.
	(a)	Cell membrane	(b)	Cell wall	(c)	DNA	(d)	Cytoplasm	
(iv)	Wh	o presented the ide	a of	sterile surgery f	or the fir	rst time?			
	(a)	Sir Alexander Flemi	ng		(b)	Joseph Lister			
	(c)	Thomas Grill			(d)	Lamarck			
(v)	Me	dicines which kill o	r stoj	the growth of	bacteria	are called:			
	(a)	Antibiotics	(b)	Analgesic	(c)	Antibodies	(d)	Antinarcotics	
(vi)	Wh	ich of the following	g dise	ases is cured by	vaccine	s?			
	(a)	Diabetes	(b)	Hepatitis B	(c)	*Cancer	(d)	AIDS	
(vii)	Ant	ibiotics inhibit or l	dll th	e:	6	*			
	(a)	Worms	(b)	Viruses	(c)	Bacteria	(d)	Yeast	
(viii)	Exp	ired drugs cause d	amag	ge to:					
	(a)	Heart	(b)	Lungs	(c)	Kidneys	(d)	Stomatch	
(ix)	Jose	eph Lister introduc	ed a	n acid to sterile	the surg	ical instruments	and to	clean wounds:	
	(a)	Carbonic acid	(b)	Acetic acid	(c)	Nitric acid	(d)	Carbolic acid	
(x)	The	number of drug a	ddict	s in Pakistan is	currentl	y estimated to be	about		
	(a)	1000,000	(b)	800,000	(c)	600,000	(d)	500,000	
(xi)	Red	luce the possibility	of in	fections on skin					
	(a)	Analgesics	(b)	Antibiotics	(c)	Disinfectants	(d)	Antiseptics	
(xii)	Den	igue fever is a /an		infection.					

(c) Fungal

(d) Algal

# Write short answers of the following questions.

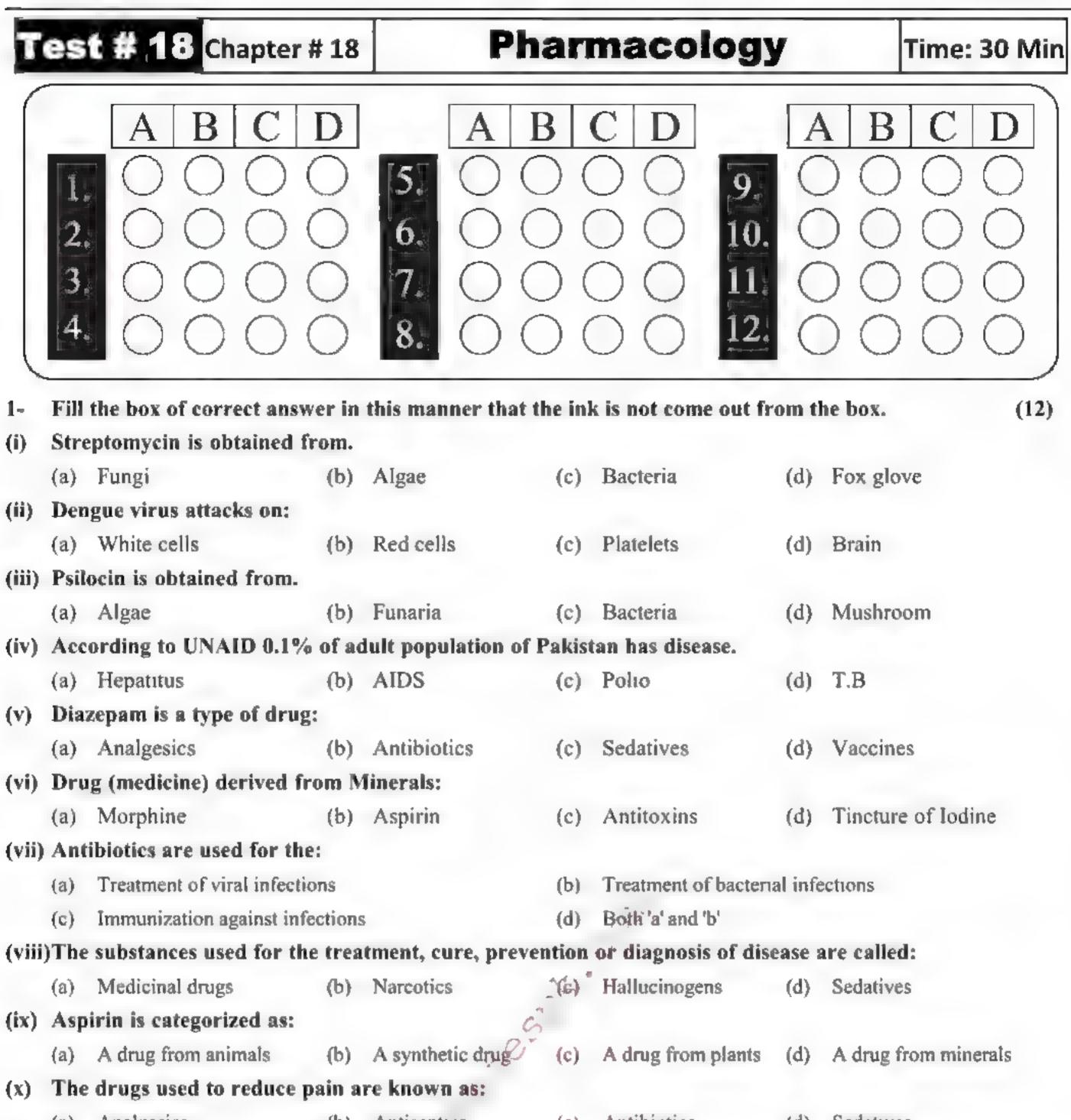
(b) Bacterial

(18)

- (1) From which Morphine and Digitalis is obtained?
- (ii) Define narcotics and give examples.

(a) Viral

- (iii) Write a short note on discovery of vaccines.
- (iv) Differentiate between Disinfectants and antiseptics.
- (v) What is contribution of Joseph Lister in biology?
- (vi) Write four precautions before taking medicines?
- (vii) Define pharmacology and pharmacologist.
- (viii) Which micro organism is killed by cephalosporins? Name two diseases for which these are sued.
- (ix) What is use of powder silver nitrate?



Analgesics

Antiseptics

Antibiotics

Sedatives (d)

(xi) Which of the following drugs is obtained from plants?

(a) Aspirin

(b) Opium

Cophalosporin

Insulin

(xii) Which of these addictive drugs are also used as painkillers?

(a) Narcotics

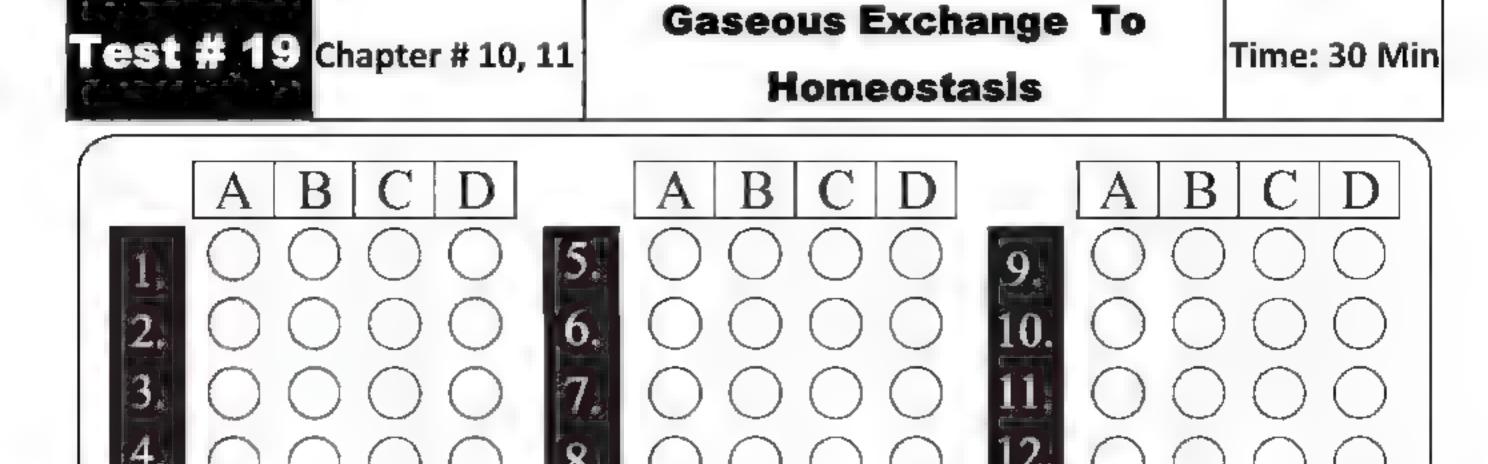
(b) Sedatives

(c) Hallucinogens

(d) All can be used

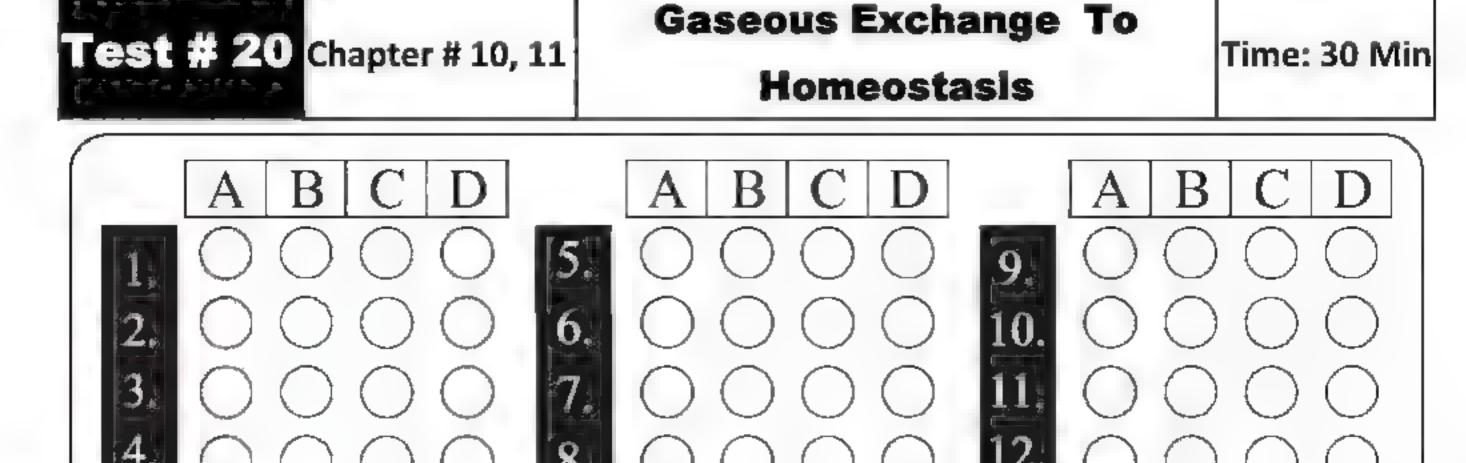
Write short answers of the following questions.

- Why vaccines are used? Write names of two diseases for which vaccines are used. (i)
- What is Marijuana? Describe its two effects.
- Define pharmacology and pharamacy NOTESPK
- What are antibiotics? Give example.
- What are synthetic drugs? Give Examples.
- (vi) How Edward Jenner made the use of vaccine in 1796?
- (vii) Define Drug. Name one synthetic Drug.
- (viii) Write two functions of B-Lymphocytes.
- (ix) Differentiate between medicinal drug and addictive drug.



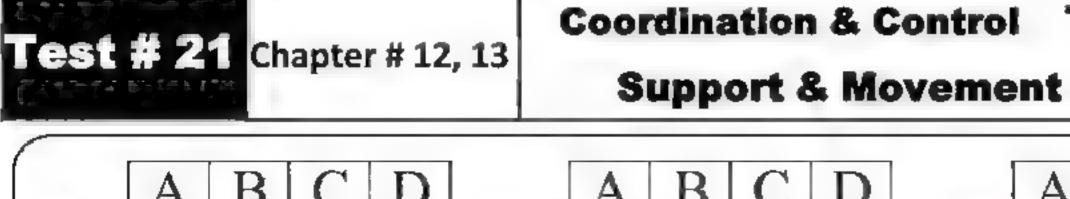
-	Fill	the box of correct ans	wer in	this manner that t	he in	k is not come out f	rom ti	he box.	(
i)	Inta	ake of oxygen from en	vironm	ent and removal of	i carl	oon dioxide is calle	d.		
	(a)	Cellular respiration	(b)	Excretion	(c)	Secretion	(d)	Gaseous exchange	
ii)	Eve	ery year "World No To	obacco	Day" is celeberate	d on:				
	(a)	31 May	(b)	30 May	(c)	31 March	(d)	21 March	
iii)	Ven	nules combine to form	:						
	(a)	Vein	(b)	Pulmonary Artery	(c)	Trachea	(d)	Pulmonary Vein	
iv)	Sto	mata are present in:							
	(a)	Epidermis	(b)	Endodermis	(c)	Xylem	(d)	Phloem	
v)	Cig	arette smoke contains	at leas	t carcinogen.					
	(a)	30	(b)	50	(c)	70	(d)	90	
vi)	In 1	normal condition hum	an resp	piration rate is:					
	(a)	12 to 15	(b)	15 to 20	(c)	10 to 12	(d)	16 to 20	
vii)	The	e length of human kidi	ney is:						
	(a)	10 cm	(b)	5 cm	(c)	4 em	(d)	27 cm	
v <b>iii</b>	)Rib	s which protect the ki	dneys 2	are:	40				
	(a)	First two	(b)	Last two	O(c)	Middle	(d)	Last four	
x)	In e	every kidney no. of Ne	phrons	is about:					
	(a)	10 Lac	(b)	More than 10 Lac	(c)	More than 5 Lac	(d)	5 Lac	
k)	Met	thod for the removal o	f kidne	ey stones is:					
	(a)	Biopsy	(b)	Lithotripsy	(c)	Dialysis	(d)	Kıdney transplant	
ci)	A tl	hick muscular layer be	eneath	lungs is called:					
	(a)	Kidney	(b)	Diaphragm	(c)	Bladder	(d)	Ureter	
cii)	Ren	nal Pelvis is a part of:							
	(a)	Kidney	(b)	Heart	(c)	Lungs	(d)	Testes	

- Describe the changes which take palce during inspiration or inhalation in the chest cavity.
- What is lungs cancer? Give its two causes.
- Write the structure and function of Alveolus SPK
- What is meant by gaseous exchange? Also define breathing.
- Write down the name of chemicals found in cigarette smoke cause cancer.
- Which problems can exist after kidney transplant in human?
- (vii) What is Haemodialysis?
- (viii) Which part of kidney is renal pelvic? What is made from it?
- (ix) Describe two major causes of kidney failure.



1	_								
1-		the box of correct					ne out fr	om the box.	(12)
(i)	(a)	eath the Larynx i Parathyroid		Thyroid	J	Adrenal	(d)	Pancreas	
an	. /	centage of Oxygei	, ,	-	` '		(u)	1 ancicas	
(11)		21 %		79 %	_	04 %	(d)	0.04 %	
ain	. ,	effective against br	` ′		` `	O-7-70	(4)	0.04 /0	
(,	(a)	Beta Endorphin		42	(c)	Thymosin	(d)	Urokinase	
(iv)	, ,	centage of oxygen	* /		(0)	• 11 / 11 / 12	(4)	O TOTAL CONTRACTOR OF THE PARTY	
(,		16 %		21 %	(c)	79 %	(d)	30 %	
(v)	, ,	mber of Ribs in m	' '		(-,		()		
( )		10 pairs		12 pairs	(c)	20 pairs	(d)	22 pairs	
(vi)		seous exchange in	, ,	•	(-)		(-/		
` ′	(a)	Bronchi		Trachea	(c)	Pharynx	(d)	Alveoli	
(vii)	, ,	e maintenance of v	, ,			2.4	` '		
		Filteration		Excretion	(c)	Homeostasis	7	Reabsorption	
(viii	Du	ring lithotripsy sto	one is a	removed by:	4	O <sup>3</sup>	, ,		
	(a)	Surgery			(16)	Medicines			
	(c)	Electrical shock v	vaves		~ (d)	Non electrical s	hock wa	ves	
(ix)	The	e concave part of t	the kid	ney is towards;	9				
	(a)	Upper			(b)	Lower			
	(c)	Toward vertebrai	colum	n	(d)	Away from ver	tebral col	umn	
(x)	As	per normal chemi	cal cor	mposition the ar	mount of	water in the ur	ine is:		
	(a)	60%	(b)	70%	(c)	80%	(d)	95%	
(xi)	Exa	ample of Hydroph	yte pla	ants is:					
	(a)	Water hly	(b)	Cactus	(c)	Sea grass	(d)	Grass	
(xii)	The	e organ that filters	the b	lood:					
	(a)	Intestine	, ,		, ,	Kidney	(d)	Brain	
		ite short answers		NUTES	DEN.			10. 40. 40. 40. 10. 10. 10. 10. 10. 10. 10. 10. 10. 1	(18)
(i)	Wri	ite down the function	on of a	lveoli.					
Giv	1174	at is mount by comi	motom	and the second second					

- (ii) What is meant by respiratory centre.
- (iii) What is the percentage of Nitrogen in exhaled and inhaled air?
- (iv) What is the percentage of carbon dioxide in exhaled and inhaled air?
- (v) Define and give the function of diaphragm.
- (vi) How plants remove extra carbon dioxide?
- (vii) What role is played by lungs in homeostasis?
- (viii) Write osmoregulatory function of kidney.
- (ix) Write the names of different parts of human Urinary System.





ABCD	A B C D	A B C D
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2. 0 0 0 0	6.000	10.
3. 0 0 0	7.0000	
4.0000	8. 0000	11. 0000 12. 0000
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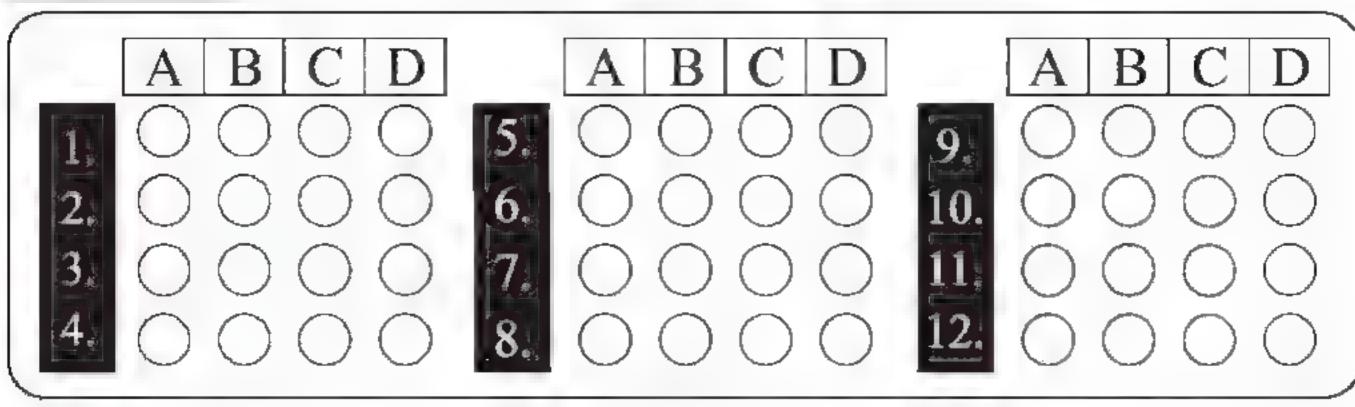
1-	Fill	the box of correc	t answ	er in this manner	that t	he ink is not come	e out fr	om the box.	(12)
(i)	Wh	ich part of middl	e ear se	eparates it from in	ner e	ar.			
	(a)	Stapes	(b)	Incus	(c)	Malleus	(d)	Oval window	
(ii)	Par	athyroid glands s	secretes	hormone, is call	ed:				
	(a)	Calcitonin	(b)	Thyroxin	(c)	Parathormone	(d)	Epinephrine	
(iii)	The	parts of forebra	in are:						
	(a)	Thalamus, medu	lla and <sub>l</sub>	pons	(b)	Thalamus, hypot	halamu	s and cerebrum	
	(c)	Thalamus, hypot	halamus	s and cerebellum	(d)	Medulla, cerebel	lum and	i pons	
(iv)	The	Cochlea is prese	ent in:						
	(a)	External Ear	(b)	Middle Ear	(c)	Internal Ear	(d)	None of these	
(v)	Wh	ich disease is not	related	to lungs:					
	(a)	Asthma	(b)	Emphysema	(c)	Myopia	(d)	Pneumonia	
(vi)	Wh	en the human bo	dy has	low amount of wa	iter, tl	en Pituitary Gla	nd secr	rets:	
	(a)	Vessopressin	(b)	Insulin	(c)	TSH 🔨	(d)	Oxytocin	
(vii)	Exa	imple of hinge joi	ints is:						
	(a)	Elbow joint	(b)	Hip joint	(c)	Shoulder joint	(d)	Joints between the	vertebrae
(viii	)Nui	mber of bones in	both fe	et is:		-			
	(a)	108	(b)	126	(c)	22	(d)	56	
(ix)	Nui	mber of bones in	Append	dicular Skeleton j	5				
	(a)	120	(b)	126	(c)	56	(d)	108	
(x)	Wh	ich one of the fol	lowing	have exoskeleton.					
	(a)	Arthropods	(b)	Birds	(c)	Mammals	(d)	Reptiles	
(xi)	Nur	mber of bones in	upper .	Jaw is:					
	(a)	Two	(b)	Three	(c)	Ten	(d)	Fourteen	
(xii)	The	cartilage found	in inter	vertebral discs is:					
	(a)	Hyaline	(b)	Fibrous	(c)	Matrix	(d)	Elastic	
3									
2-	Wri	ite short answers	of the	following question	ıs.				(18)
(i)	Diff	ferentiate between	somatic	nervous system ar	nd auto	onomic nervous sy	stem.		
(ii)	Wha	at is hypothalamus	? Write	down its Cunction	K				
(iii)	Wri	te down the name	s of part	ts of internal ear.					
(iv)	Wha	at is myelin sheath	?						

- (v) Write down function of parathyroid gland?
- (vi) Describe Osteocytes.
- (vii) What is difference between hyaline cartilage and elastic cartilage?
- (viii) What is meant by arthritis. How it can be treated?
- (ix) What are the types of connective tissues?

Test # 22 Chapter # 12, 13

# Coordination & Control 1 Support & Movement

Time: 30 Min
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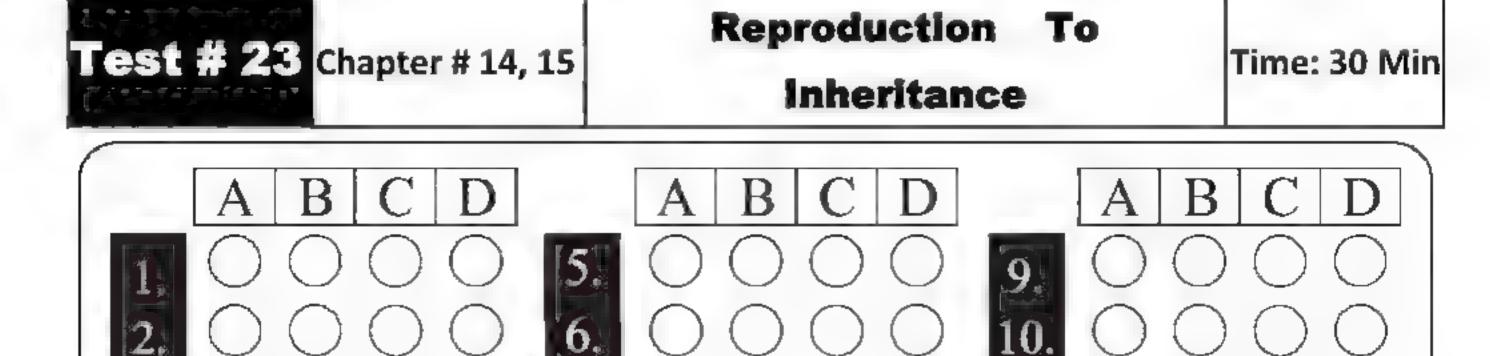


	_								
1-	Fill	the box of correct	answ	er in this manner t	hat t	he ink is not come out	from t	he box.	(12)
(i)	Par	t of brain that co-	ordin:	ates muscle movem	ents:				
	(a)	Cerebellum	(b)	Pons	(c)	Medulla Oblongata	(d)	Hypothalamus	
(ii)	Disc	ease caused by def	icienc	y of iodine in food	is cal	led:			
	(a)	Diabetes mellitus	(b)	Hyper-thyroidism	(c)	Dwarfism	(d)	Goiter	
(iii)	Hy	permatropia is also	o calle	ed:					
	(a)	Long sight	(b)	Short sight	(c)	Myopia	(d)	Night blindness	
(iv)	The	number of lobes in	right	lung is:					
	(a)	1	(b)	2	(c)	3	(d)	4	
(v)	Wh	o described 130 di	iseases	of eye?					
	(a)	Ali Ibne Sena	(b)	Newton	(c)	Jabbir Bin Hyyan	(d)	Ali Bin Mussa	
(vi)	Wh	ich one controls ra	age, p	ain, pleasure and s	orrov	v?			
	(a)	Cerebellum	(b)	Medulla	(c)	Hypothalamus	(d)	Midbrain	
(vii)	Ela	stic cartilage is fou	ınd in	*		4			
	(a)	Larynx	(b)	Trachea	(c)	Bronchial tubes	(d)	<b>Epiglottis</b>	
(viii	)Ste	rnum is a bone of	:						
	(a)	Leg	(b)	Chest Bone	(c).	Cranium	(d)	Hand	
(ix)	Car	rtilagenous cells ar	e call	ed.					
	(a)	Chondrocytes	(b)	Osteocytes	V(c)	Leucocytes	(d)	Erthrocytes	
(x)	The	smallest bone of	huma						
	(a)	Stapes	(b)	Incus	(c)	Malleus	(d)	Vertebra	
(xi)	The	e biggest bone of o	ur bo	dy is found in					
, ,	(a)			Hand	(c)	Leg	(d)	Waist	
(xii)	. ,	ter hard layer of b							
, ,		Compact Bone		Spongy Bone	(c)	Cartilage	(d)	Osteosite	
9			(-)		(-)		(-)		

### 2- Write short answers of the following questions.

- (1) What is epilepsy?
- (ii) What is the cause of diseases 'Hypothyroidism' and 'Hyperthyroidism', write two symptoms for each,
- (iii) Compare the functions of hormones "Insulin Sand "Glucagon".
- (iv) Write the names and effects of hormoness secreted by testes and ovaries.
- (v) Differentiate between structure and function of sensory neurons and motor neurons.
- (vi) What is osteoporosis? Give at least one reason for this disease.
- (vii) Differentiate between Gout and Osteoarthritis.
- (viii) What are Flexor and Extensor?
- (ix) What is the similarity between bone and cartilage.

3,



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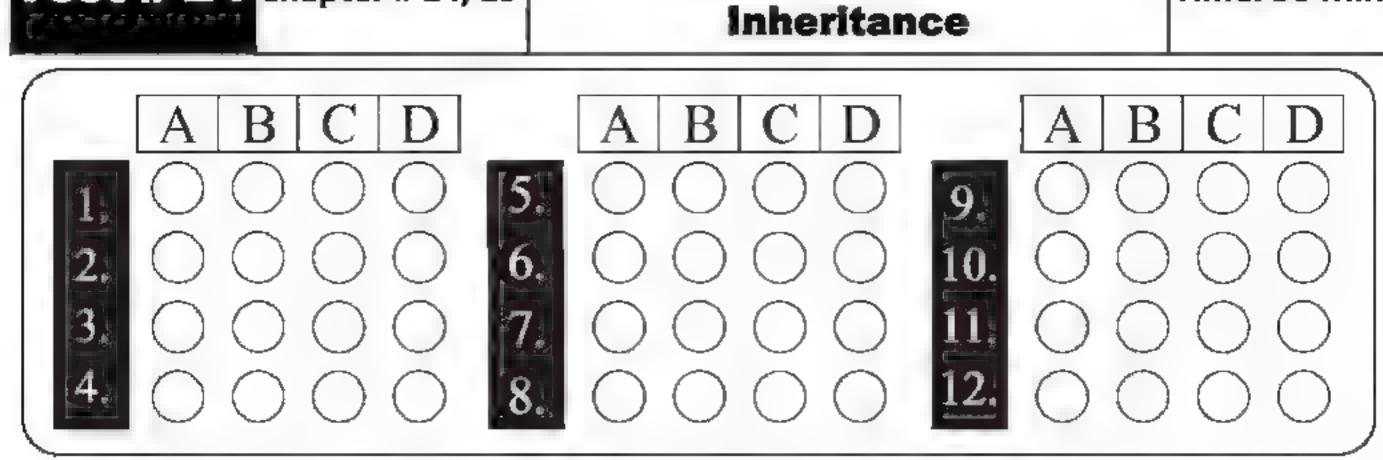
1-	Fill	the box of correc	ct answ	er in this manner that	the in	k is not come out f	rom t	he box. (12)
(i)	Am	oeba is reproduc	ed asex	cualy by:				
	(a)	Budding	(b)	Binary fission	(c)	Fragmentation	(d)	Spore formation
(ii)	Wh	ich of the cells of	fovary	have diploid number of	of chro	mosomes?		
	(a)	Oogonia	(b)	Secondary oocytes	(c)	First polar body	(d)	Egg cell
(iii)	Ind	ividual units of c	orolla a	are:				
	(a)	Carpels	(b)	Petals	(c)	Stamens	(d)	Sepals
(iv)	Mic	crospores are pro	duced	by:				
	(a)	Mitosis	(b)	Meosis	(c)	Fission	(d)	Budding
(v)	Rhi	izopus reporducs	Asexua	ally by:				
	(a)	Binary fission	(b)	Budding	(c)	Spore formation	(d)	Endospore formation
(vi)	Gin	ger reproduce by	y:					
	(a)	Bulbs	(b)	Coms	(c)	Rhizomes	(d)	Stem tubers
(vii)	Dai	rwin proposed th	e Theor	ry of:		4		
	(a)	Special creation			(b)	Natural selection		
	(c)	Use and disuse of	organs		(d).	Mutation		
(viii)	The	allele which is n	ot expr	essed in $F_1$ generation	is:			
	(a)	Dominant	(b)	Recessive	/ (c)	Mutant	(d)	Selected
(ix)	The	e ratio of phenoty	pe in t	he law of independent	assort	ment is:		
	(a)	9:3:3:1	(b)	9:3:2:2	(c)	9:3:1:3	(d)	9:3:1:4
(x)	Cha	arles Darwin pro	posed t	he mechanism of orga	nic evo	olution in:		
	(a)	1838	(b)	1839	(c)	1840	(d)	1850
(xi)	The	ese are the units o	of inher	itance:				
	(a)	Genes	(b)	Alleles	(c)	Genotype	(d)	Phenotype
(xii)	Mo	del of DNA struc	ture wa	as presented by:				
	- ,	Mendel	(b)	Watson	(c)	Crick	(d)	Watson & crick
×								
2-	Wr	ite short answers	of the	following questions.				(18)
(i)	Stat	te radicle and plun	nule.					
(ii)	Wh	at is follicle?		NOTESPK				
CHIN	117L	at is annuluation?						

- (iii) What is germination?
- (iv) Define fragmentation. Give an example.
- (v) Write the names of parts of a flower.
- (vi) Enlist the nitrogenous bases present in DNA double helix.
- (vii) What is difference between homozygous genotype and heterozygous genotype?
- (viii)Define Mendel's law of segregation.
- (ix) Define artificial selection or selective breeding.

Time: 30 Min

Test # 24 Chapter # 14, 15

Reproduction



1-	Fill	the box of correct	answ	er in this manner	that tl	he ink is not come o	out fr	om the box.	(12)
(i)	Wh	ich one is artificles	vege	tative propagation	:				
	(a)	Bulbs	(b)	Corms	(c)	Rhizomes	(d)	Grafting	
(ii)	Pak	istan's Federal Mi	nistry	of health establis	hed N	ACP in:			
	(a)	1987	(b)	1988	(c)	1989	(d)	1990	
(iii)	The	outer most whorl	of flo	wer is called:					
	(a)	Calyx	(b)	Corolla	(c)	Androecium	(d)	Gynoecium	
(iv)	Oni	ion and tulips plan	ts rep	roduce by:					
	(a)	Bulbs	(b)	Corms	(c)	Rhizomes	(d)	Stemtubers	
(v)	Gar	rlic reproduce by:							
	(a)	Bulbs	(b)	Rhizome	(c)	Corms	(d)	Stem tubers	
(vi)	Veg	etative propagatio	n in r	nint takes place by	<b>/:</b>				
	(a)	Rhizome	(b)	Corms	(c)	Leaves	(d)	Suckers	
(vii)	Scie	entist who develope	ed lav	v of segregation:		4			
•	(a)	John Methew		Gregor Mendel	(c)	RC Punnett	(d)	Cahrles Darwin	
(viii)	The	branch of Biology	in w	hich we study abo	ut ink	eritance is called:			
	(a)	Microbiology	(b)	Physiology	(c)	Genetics	(d)	Ecology	
(ix)	Sou	rces of variations i	n the	Organisms are:	C				
	(a)	Crossing over	(b)	Mutation	(c)	Both A and B	(d)	Mitosis	
(x)	Ger	otype in which Ge	ne pa	ir contains two id	entica	l alleles is called:			
	(a)	Homozygous	(b)	Heterozygous	(c)	Hemizygous	(d)	Homologous	
(xi)	The	anti-evolution ide	a is c	alled:					
	(a)	Breeding theory			(b)	Special evolution (	theory		
	(c)	Theory of special	creation	on	(d)	Darwinism			
(xii)	Alte	ernate form of gene	e is ca	illed:					
,	(a)	Translation	(b)	Allele	(c)	Genotype	(d)	Phenotype	
>									
2-	Wri	ite short answers o	f the						(18)
(i)	Def	ine parthenogenesis		NOTESPA					
(ii)	Hov	v spermatids change	into	sperms?					
(iii)	ii) What is Embryo? Write its parts.								

Differentiate between Internal and External Fertilization.

(vi) What is difference between dominant allele and recessive allele?

(vii) Define gene. How many genes are present in one chromosome?

What is Oogenesis?

(viii) What is Theory of Special Creation?

(ix) Write two points of Watson-Crick Model of DNA.

Time: 30 Min

To

Test # 25 Chapter # 16, 18

Define genetic engineering.

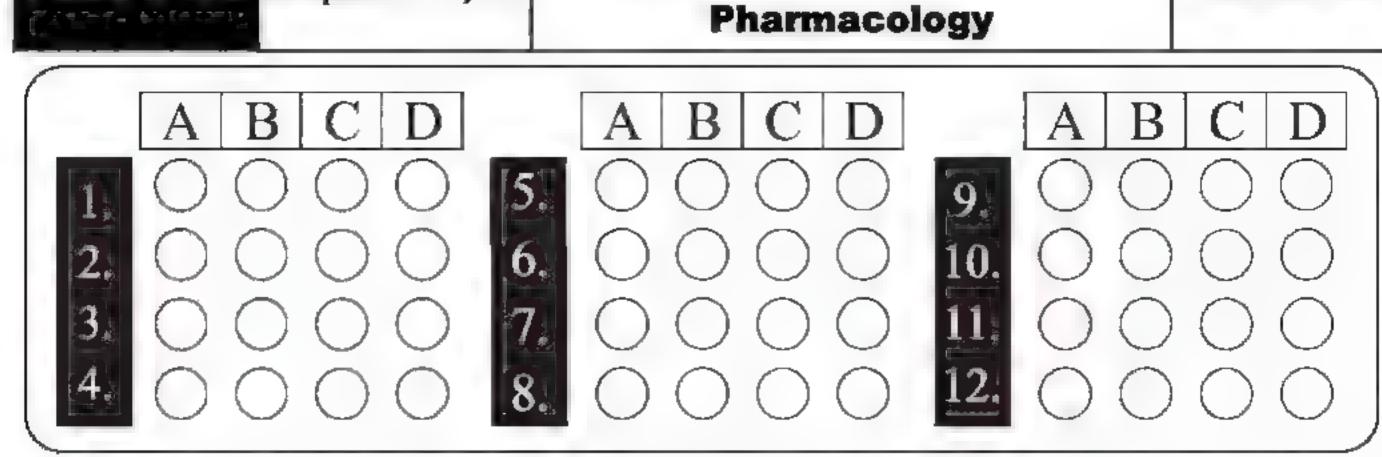
Write four importance of biotechnology.

(viii) Write difference between antigens and antibodies.

(vii) What are sephalosporins and tetracyclines?

(1x) Define Sedatives and give examples.

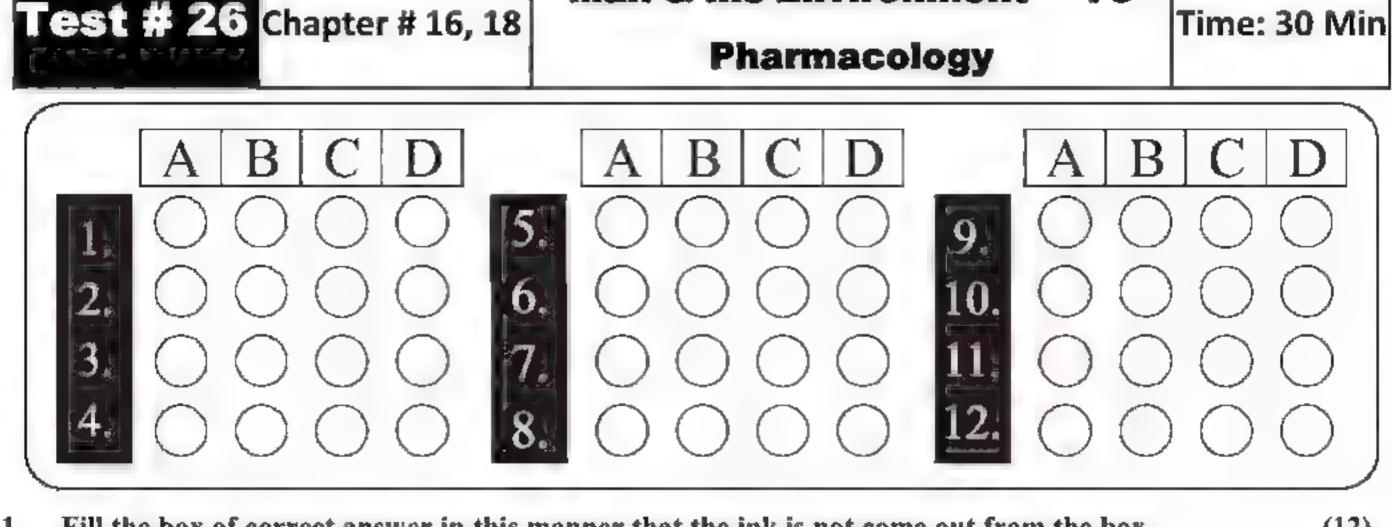
**Man & his Environment** 



1-	Fill	the box of correct a	answ	er in this mann	er that th	ne ink is not come	out fr	om the box.	(12)
(i)	It is	a perfect cycle in t	he se	ense that is retu	rned to a	tmosphere as soon	as it	is removed.	
	(a)	Carbon cycle	(b)	Nitrogen cycle	(c)	Water cycle	(d)	Oxygen cycle	
(ii)	Bio	tic component of ar	eco	system is.					
	(a)	Producer	(b)	Consumer	(c)	Decomposer	(d)	Light	
(iii)	Flor	wer of which plant	is po	llinated by win	d.				
	(a)	Rose	(b)	Sunflower	(c)	Grass	(d)	Butter cup	
(iv)	Cor	version of Nitrates	into	Nitrogen gas is	called:				
	(a)	Denitrification	(b)	Assimilation	(c)	Ammonification	(d)	Nitrogen Fixation	
(v)	Vec	tor DNA and Gene	of in	iterest, collectiv	ely called	1:			
	(a)	Gene			(b)	Recombinant Gen	e		
	(c)	Recombinant DNA			(d)	GMO			
(vi)	The	main source of all	type	s of Fermentati	on is:				
	(a)	Genes	(b)	Alleles	(c)	Micro-organism	(d)	Chromosomes	
(vii)	Alc	oholic fermentation	is p	rocessed by:		-			
	(a)	Virus	(b)	Bacteria	(c),(	Fungi	(d)	Algae	
(viii	)The	animal whose DN	A has	s been changed	is called:				
	(a)	Transformed	(b)	Transgenic	~√(c)	Monohybrid	(d)	Dihybrid	
(ix)	Pat	hogens contain spec	cial p	roteins called:			, ,		
, ,	(a)	Antigens	(b)	Antibodies	(c)	Antibiotics	(d)	Antiseptics	
(x)	Mes	scaline is obtained f	rom	a plant:					
, ,		Opium		Cactus	(c)	Maize	(d)	Brassica	
(xi)	Med	dicine (drug) deriv	ed fr	om animals.			. ,		
. ,	(a)	Morphine		Aspirin	(c)	Antitoxins	(d)	Tincture Iodine	
(xii)	A n	naterial which conta	ain w	eekened pathog	gen is cal	led:			
, ,	(a)	Vaccin		Antigen	(c)	Bacillus	(d)	Sacchromyces	
><									
2-	Wr	ite short answers of	the						(18)
(i)	Wri	te a short note on as	simila	ation.	PK				
(ii)	Hov	v energy flows in an	ecos	ystem?					
(iii)	Wri	te any two effects of	defo	restation.					
(1V)	Wha	at are endonuclease a	and L	igase'?					

To

Man & his Environment



Fill the box of correct answer in this manner that the ink is not come out from the box. (12)The base of food chain is always a: (d) Plant (a) Animal (b) Sun Bacteria (c) (ii) Which one is not biotic factor. (d) Bacteria (a) Plants (b) Animals (c) Soil (iii) The host country of the greatest no. of refugees in the world is: (a) India (b) Canada (c) Pakistan America (iv) To convert nitrogen gas into nitrate is called: Denitrification Nitrogen fixation Ammonification Assimilation (c) The human genome project was started in: (a) 1990 A.D. (b) 1991 A.D. (c) 1992 A.D. (d) 1993 A.D. (vi) Alcoholic fermentation is carried out by: Saccharomyces cerevisiae (b) Streptococcus (c) Lactobacillus (d) Yeast (vii) Find the correct match for the fermentation product and the organism involved: Formic acid - Saccharomyces (b) Ethanol - Saccharomyces Ethanol - Aspergillus (d) Glycerol - Aspergillus (viii) Which one is NOT an objective of genetic engineering? (a) Production of cheese and yogurt by lactic acid bacteria Isolation of a particular gene or part of a gene (c) Production of RNA and protein molecules (d) Correction of genetic defects in higher organisms (ix) Drugs interact with Central Nervous System to depress its activities belong to the group of Drugs called: (a) Sedatives (b) Narcotics (c) Analgesics (d) Vaccines Penicillin was discovered by: (c) Robert Hook (d) Alexander Fleming (a) Lamark (b) Darwin (xi) Edward jenner introduce vaccine of which disease? (b) AIDS (c) Hepatitis (d) Malaria (a) Smallpox (xii) Sir Alexander Fleming was awarded the Nobel Prize in: (a) 1940 (d) 1960 (b) 1945 NOTESPK (c) 1950 Write short answers of the following questions. (18)Differentiate between actoparasite and endoparasite. (i)

- Define population and community?
- (iii) Where endoparasites live? Give one example.
- (iv) What is gene therapy? Describe briefly?
- What is the function of restriction endonucleases?
- (vi) Write short note on lactic acid fermentation.
- (vii) Write about some drugs from plants and fungi.
- (viii) Write effects of hallucinogens.
- (ix) Why sedative drugs are used?

į	est # 27 Chapter # 10 T	o 13 FIRST HALF BOOK PAPER NO	<b>1</b> Time: 1 Hour
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	2.0000	6. 000010.0	000
	3.0000	7.0000110	000
		8. 0 0 0 12. 0	

1-	Fill	the box of correc	t answ	er in this manne	er that tl	he ink is not come out	from t	he box.	(12)
(i)	For	gaseous exchange	e the le	eaves and young	g stems h	ave in their epidermis	S:		
	(a)	Stomata	(b)	Lenticels	(c)	Companion cell	(d)	Ground cells	
(ii)	The	e chest wall is mad	le up o	of pairs of	ribs.				
	(a)	8	(b)	12	(c)	16	(d)	20	
(iii)	The	gas produced in	mesop	hyll cells as by-	product	during day time is cal	lled:		
	(a)	Oxygen	(b)	Carbon dioxide	(c)	Nitrogen	(d)	Chlorin	
(iv)	Pla	nts store a large a	mount	of water in the	ir cells f	or:			
	(a)	Transpiration	(b)	Photosynthesis	(c)	Turgidity	(d)	Guttation	
(v)	Th	e human urinary	systen	n consists of:					
	(a)	Rectum, lungs, kid	neys, u	reters	(b)	Kidneys, ureters, urinar	y bladde	er	
	(c)	Skin, liver, lungs, l	kidneys		(d)	Kidneys, ureters, urinar	y bladde	er, urethra	
(vi)	Wh	ich organ is respo	nsible	for filtering the	blood?				
	(a)	Intestine	(b)	Brain	(c)	Stomach	(d)	Kidney	
(vii)	Wh	ich one is co-ordi	nator	in nervous co-or	rdination	1?			
	(a)	Glands			(b)	Brain and spinal cord			
	(c)	Brain			(d)	Spinal cord			
(vlii)	The	function of effec	tor is c	called.		C			
	(a)	Stimulus	(b)	Impulse	(c)	-Response	(d)	Axon	
(ix)	Rot	and hole in the ce	ntre of	Iris through w	hich ligh	t passes is called.			
	(a)	Retina	(b)	Blind spot	(Pc)	Choroid	(d)	Pupil	
(x)	Wh	ich of the followin	ng tiss	ues join the mus	cles to t	he bones:			
	(a)	Tendons	(b)	Ligaments	(c)	Cartilage	(d)	Bone marrow	
(xi)	The	e skeleton found o	utside	the body is calle	ed:				
	(a)	Endoskeleton	(b)	Exoskeleton	(c)	Hydro - skeleton	(d)	Fibro - skeleton	
(xii)	Son	ne bones prepare:							
	(a)	Mucous	(b)	Blood cells	(c)	Oxygen	(d)	Hormones	
×									
2-	Wr	ite short answers	of the	following questi	ions.				(20)
(i)	Wri	ite the causes and t	wo syn	nptoms of Emphy	ysema.	(ii) Write a short not	e on ga	seous exchange in	Plants.
(iii)	Des	scribe the role of "E	Bowma	n's Capsule" in th	ne nephro	on.			
(iv)	Def	ine thermoregulation	on and	excretion.		(v) What is meant by	y pressu	ire filtration?	
		scribe the function			at in the				
		at is function of pa		_		(viii) What is meant by	v Exosk	eleton and Endoske	eleton?
		at is difference bet			nents.	(x) Differentiate bet			
,									
						VE PART			
耸	Ans	swers the followin	g que	stions with detai	il.				(18)
3-	(a)	Explain two meth	ods by	which plants ex-	change tl	neir gases. (0	)5)		

(04)

(05)

(04)

How kidney stone is formed and what is its treatment?

Describe the structure of neuron.

Explain three types of Joints.

### Test # 28 Chapter # 10 To 13 FIRST HALF BOOK PAPER NO. 2 Time: 1 Hour В В 6. 3. Fill the box of correct answer in this manner that the ink is not come out from the box. (12)The process of gaseous exchange involves: (i) Breakdown of C-H bonds to yield energy (b) Physical movement that take air in and out of body Getting oxygen from the air and removing carbon dioxide Transport of oxygen by the blood to different parts of the body Most of the gaseous exchange in a leaf occurs through: (b) General surface (d) Lenticels Stromata (c) Cuticle (iii) How many bronchi are there in the air passageway? (a) One (b) Two (c) Many None (d) (iv) The tube between kidney and urinary bladder is the: (a) Ureter (b) Urethra (c) Renal tubule Nephron (v) 'Body balance' of water, salts, temperature and glucose is termed as: (b) Tubular secretion (c) Homeostasis Re-absorption (a) Excretion (vi) Which is the correct order for the path taken by urine after it leaves the kidneys? (a) Urethra, bladder, ureters Bladder, ureters, urethra (c) Ureters, bladder, urethra Bladder, urethra, ureters (vii) Central nervous system include brain and: (a) Noto cord (b) Vertebra Spinal cord (d) Heart (viii)No. of components of coordination process is: (b) 7 (a) 4 (d) 5 (ix) The unit of Nervous system is: (b) Neuron (c) Receptors (d) Nephron (a) Nucleus (x) When uric acid accumulates in the joints, then the disease will be: (a) Gout (b) Rheumatoid arthritis Osteo arthritis (c) Osteoporosis (xi) Osteoporosis is a disease of: (a) Bones (b) Heart (c) Stomach Brain (xii) The disorder in which uric acid crystal are accumulated in joints is: (a) Osteoarthritis (b) Rheumatoid arthritis (c) Gout (d) Osteoporsis Write short answers of the following questions. (20)What is Nicotine? (ii) Write down the importance of Trachea in the Respiratory Sytem. (i) (iv) What is difference between renal corpuscle and renal tubule? (iii) What is tubular secretion? What is kidney failure and how it can be treated? (vi) What are effectors? Give its two examples. (vii) Define Stimuli and Response. (viii) Define joint. Give one example of fixed and moveable joints. (ix) Write four causes of osteoporosis. (x) How many bones are present in Vertebral Column? Write the name of the biggest bone in human body.

太	Ans	wers the following questions with detail.		(18)
3-	(a)	What are the bad effects of smoking. Write in detail.	(05)	
	<b>(b)</b>	What is meant by kidney failure? Describe its causes.	(04)	
4-	<b>(a)</b>	Describe peripheral nervous system and its types with their functions.	(05)	
	<b>(b)</b>	How many types of antagonostic muscles are there and how they work?	(04)	

SUBJECTIVE PART

(20)

(18)

### Test # 29 Chapter # 14 To 18 SECOND HALF BOOK PAPER NO. 1 Time: 1 Hour В В 6. 3. Fill the box of correct answer in this manner that the ink is not come out from the box. (12)Male gonads are known as: (i) (a) Spores (b) Ovaries (c) Testes (d) Egg cells Normally external fertilization occurs in: (a) In the body (d) All of these (c) Water (b) Air (iii) Fourth whorl of flower is: (c) Androecium (a) Calyx (b) Corolla (d) Gynoecium (iv) Albinism is a trait. (b) Dominant (c) Heterozygous (a) Co-dominant (d) Recessive (v) When did scientists become able to cut and unite DNA? (a) 1945 (d) 1970 (b) 1924 (c) 1944 (vi) The types of inheritable variations are: (a) 2 (b) 3 (d) 5 (c) -4 (vii) A recovery of one tonne of paper can save how many trees? (d) 100 (viii)Bred plants are called: (b) Cultivars (c) Camiyores (a) Breeds (d) Herbivores (ix) The process in which there is incomplete oxidation reduction of glucose is called:

(b) DNA technology

(c) Genetic engineering

(d) Fermentation The product used in printing is:

(c) Ethanol (d) Glycerol (a) Formic acid (b) Acrylic acid

(xi) It affects the production of sperms in men and also weakens the short term memory. (b) Psilocin (a) Morphine (c) Marijuana (d) Caffeine

(xii) Some drugs often make persons dependent on them, are called:

(a) Sedative (b) Addictive (c) Antibiotic (d) Analgesics **X**-----

Write short answers of the following questions.

What is the full name of STD?

Define bulbs and corms (ii)

(a) Biotechnology

(iii) What are advantages of artificial selection?

(iv) What is meant by Albinism.

Differentiate between deforestation and afforestation.

(vi) What do you mean by eutrophication?

(vii) State alcoholic fermentation.

(viii) How gene is entered into a vector?

(ix) Write names of two types of antibiotics.

(x) Define Bactericidal and Bacteriostatic Antibiotics.

### SUBJECTIVE PART

Answers the following questions with detail. (a) Discuss two types of artificial vegetative propagation. (05)(b) Explain Mendel's law of independent assortment with an example. (04)(a) Compare Parasitism to that of Mutualism. Give one example of each. (05)(b) What is single cell protein. How it is produced and what is its importance. (04)

(04)

(05)

(04)

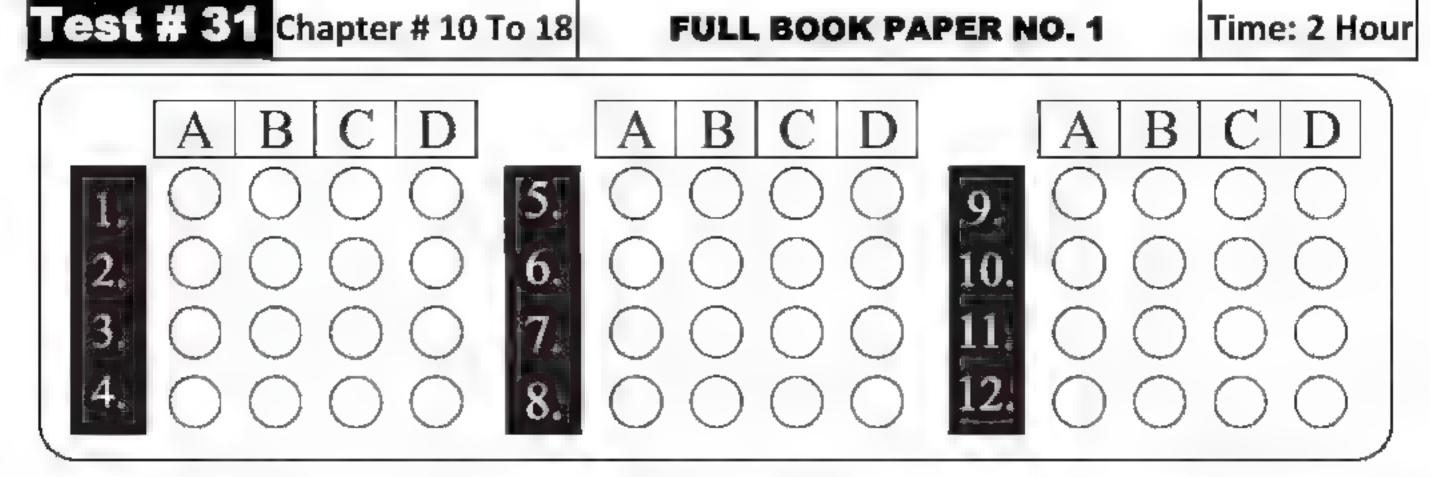
# 

1-	FIII '	the box of correct	answ	er in this manner tr	iat the ini	k is not come out	t trom t	ne box.	(12)
(i)	Is no	ot a part of carpel							
	(a)	Ovary	(b)	Anther	(c)	Stigma	(d)	Style	
(ii)	Ova	ry is ripened into:							
	(a)	Seed	(b)	Flower	(c)	Fruit	(d)	Sweethness	
(iii)	The	re is a scar on seed	i coat	t of seed which is cal	lled:				
	. ,	Radical	' '	Hılum	(c)	Integument	(d)	Plumule	
(iv)				iology in which we s	-				
		Functions	- /		(c)	Inheritance	(d)	Evolution	
(v)	-	ocine always make							
			, -	Hydrogen		Adenine	, ,	Thymine	
(vi)				on of world was app				=00	
	. /	400		500	, ,	600	(d)	700	
(vii)		*		rld together form th				** 41.	
		•	, ,	Biosphere	(c)	Community	(d)	Habitat	
(viii	)The	human genome p							
	(a)	1990 A.D.	` '	1991 A.D.	(c)	1992 A.D.	(d)	1993 A.D.	
(ix)	Aico	holic fermentation		•					
	(a)	Saccharomyces ce	revisi	ae	(b)	Streptococcus			
	(c)	Lactobacillus			2 4	Yeast			
(x)	Sir A	Alexander Fleming	g was	awarded the Nobel	. "-"				
	1 7	1940		1945	_6 (c)	1950	(d)	1960	
(xi)	Is p	repared from opiu	ım;	×	4				
	(a)	Vaccine	(b)	Aspirin	(c)	Morphine	(d)	Paracetamol	
(xii)	Med	licines which indu	ce se	dation by reducing i	rritability	and excitement	t are cal	lled:	
	(a)	Analgasics	(b)	Antibiotics	(c)	Sedactives	(d)	Vaccines	
×									
2-	Wri	te short answers o	f the	following questions	•				(18)
(i)	Wha	it is meant by spern	natog	enesis?					
		it do you know abo	_						
		it is difference betw		E. 2					
		ne nucleosomes.	COIL E	circs and ancies.					
			C .   .   .						
		it is the threat for M			1.1				
' '				ophs and heterotrophs	with an e	example.			
(vii)	Wha	it is vector in genet	ic eng	gineering?NOTESPK					
(viti	)Writ	e the uses of Formi	ic acid	d and Acrylic acid in	industry.				
(ıx)	Defi	ne narrow spectrun	n and	broad spectrum antib	piotics.				
(x)	Wha	it is meant by "Soci	al Sti	gma"?					
				SUBJE	CTIVE	PART			
*	Ans	wers the following	que	stions with detail.					(18)
3-			_	ontinuous and discon	tinuous va	riations.			(05)

Describe the scope and importance of biotechnology in the fields of food, agriculture and medicine.

Explain different methods of nitrogen fixation.

Define vaccines with their importance.



Time: 15 Min

### Objective Type

Total Marks: 12

Note: You have four choics for each objective type question as A,B,C&D. The choice which you think is correct. Fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

Q.1	Questions	(A)	(B)	(C)	(D)
(i)	Cytosine always pair with:	Guanine	Thiamine	Adenine	Hydrogen
(ii)	Naturally found in graphite and diamond:	Nitrogen	Carbon	Oxygen	Hydrogen
(iii)	Is not a part of carpel:	Ovary	Anther	Stigma	Style
(iv)	Alcoholic fermentation is processed by:	Virus	Bacteria	Fungi	Algae
(v)	Stomata are frequently present on:	Upper side of leaf	Lower side of leaf	Both sides of leaf	Stem
(vi)	Alternate form of gene is called:	D.N.A	Gamete	Chromosome	Allele
(vii)	As per normal chemical composition the amount of water in the urine is:	60%	70%	80%	95%
(viii)	Ovary is ripened into:	Seed	Flower	Fruit	Sweethness
(ix)	In every 100 ml of human blood concentration of glucose is maintained as:	180-200mg	150-180mg	100-150mg	80-120mg
(x)	Some bones prepare:	Mucous	Blood cells	Oxygen	Hormones
(xi)	Is prepared from opium:	Vaccine	Aspirin	Morphine	Paracetamol
(xii)	The part of the brain responsible for muscle movement, interpretation of the senses and the memory is:	Cerebrum	Pons	Medulla oblongata	Cerebellum

### Subjective (Part-I) Marks : 48 🖫

Time: 01:45  $(5 \times 2 = 10)$ 

- Write short Answers of any five part.
  - (ii) Define vocal cords.
- (iii) Why does blood become thick due to smoking?

Define ligaments.

Define nasal cavity.

- What are biceps and triceps?
- Differentiate between flexor and externsor muscle.
- (vii) Define predation with an example.

(viii) What are the effects of global warming?  $(5 \times 2 = 10)$ 

- Write short Answers of any five part. What are hydrophytes? Give an example. (i)
- What is hillus? (ii)

賞 SUBJECTIVE (Part-II) 賞

- (iii) Define dialysis. Name its two types.
- (iv) What is reproduction? Name its two basic types.
- What is difference between self polination and cross pollination?
- (vi) What is vector in genetic engineering? (vii) What is meant by single cell protein?

(viii) What is meant by gene therapy?

Write short Answers of any five partOTESPK

 $(5 \times 2 = 10)$ 

- What is meant by salutatory impulses?
- What are meninges? Write down their function.
- (iii) Differentiate between transciption and translation. (iv) Differentiate between gene and allele.

Differentiate between breeds and varieties.

(vi) What is meant by analgesics? Give an example.

- (vii) Define hallucinogens.
- (viii)Differentiate between bactericidal and bacteriostatic antibiotics.

### Attempet any three Questions. Each question has 9 marks.

 $9 \times 2 = 18$ 

- Write a complete note on Pneumonia.
  - How plants remove extra carbon dioxide and oxygen outside?
- Explain structure and function of pituitary galnd.
  - What is arthritis, describe its two types?
- (a) What is AIDS? Give its causes.
  - Explain binary fission with the help of amoeba.

Time: 15 Min

### Objective Type

Total Marks: 12

25	Fill the correct	bubbles	according	to	correct	answer.	
	1						F

Q.1	Questions	A	В	C	D
1	To which group aspirin belongs?	Drugs from animals	Drugs from bacteria	Synthetic drugs	Drugs from minerals
2	The enzyme which is used to dissolve blood clots is:	Ligase	Lipase	Urokinase	Amylase
3	The enrichment of nitrates and phosphates in water is called:	Pollution	Eutrophication	Decomposition	Nitrification
4	The units of inheritance are called:	Chromosomes	Proteins	Genes	Chromatin
5	Watson and Crick proposed the model of DNA structure in:	1951 A.D	1952 A.D	1953 A.D	1954 A.D
6	The example of insect pollinated flower is:	Corn	Rose	Willow	Hazel
7	In flower the whorl of carples is called:	Calyx	Corolla	Androecium	Gynoecium
8	The hardest connective tissue in the body is:	Tendon	Bone	Cartilage	Ligament
9	The lobe which receive impulses from skin is:	Frontal	Parietal	Occipital	Temporal
10	Paralysis is a disease due to disorder in:	Heart	<ul><li>Endocrine system</li></ul>	Liver	Nervous system
11	During lithotripsy stone is removed by:	X-rays	Surgery	Electrical shock waves	Non - electrical shock waves
12	A narrow opening present at the floor of pharynx is called:	Trachea	Nostril	Larynx	Glottis

Marks: 48

### Subjective (Part-I)

Write short answers of any FIVE parts. What are lenticels? Write their function.

- (ii) Differentiate between breathing and respiration.
- (iii) What is pneumonia? Write its cause.
- (iv) Define Guttation.
- (v) Write the name of two main organs working for homeostasis.
  - (vii) What is meant by stimulus?

(vi) Define ganglion. (viii) Write the names of two hormones produced by ovaries.

Write short answers of any FIVE parts. 3.

 $(5 \times 2 = 10)$ 

- Write down the roles of tendons and ligaments. (ii) Define joint. Write down names of its two types. (i) (iii) What is difference between epigeal germination and hypogeal germination?
- (iv) What are gonads? Write down the names of male and female gonads.
- Write down two main objectives of National Aids Control Program.
- (vi) What is meant by nucleosomes?
- (vii) Write down two main sources of variations in sexually reproducing populations.

(viii)Differentiate between breeds and cultivars.

Write short answers of any FIVE parts.

 $(5 \times 2 = 10)$ 

- Define Ecosystem. Give an example.
- (iii) What is meant by utrophication?
- (ii) Write down four symptoms of Dengue fever. (iv) Write down the name of basic steps in genetic engineering.
- (v) What is meant by Novel Protein or minifood? (vii) Differentiate between drug and addictive drugs.
- (vi) What are sedatives? Write its two effects.
- (viii) What is iodine tincture? Write its use.

### ☆ SUBJECTIVE (Part-II) ☆

Attempet any two Questions. Each question has 9 marks.

 $9 \times 2 = 18$ 

- 5. (a) Describe the structure of spinal cord.
- Describe binary fission with examples. 6.
- Write five objectives of genetic engineering.
- (b) Describe the function of human kidney.
- Explain in detail movable joints.
- Write four adverse effects of acid rain.

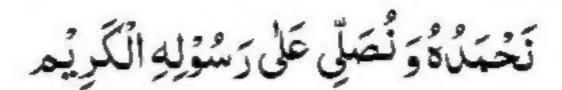
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معزز اساتذہ کرام، السلام علیکم ورحمۃ اللہ! کزارش ہے کہ سٹوڈنٹس کو مطالعہ سے پہلے درج ذیل اللہ علی معزز اساتذہ کی سے پہلے درج ذیل اللہ۔ دعاؤں کو با قاعد گی سے پڑھنے کی ترغیب دیں۔ جزاک اللہ۔

عزیز طلبا و طالبات ، آپ سب بھی دعاؤں کا اہتمام ضرور کریں۔ اللہ تعالیٰ آپ سب کے اور اساتذہ کرام کے عِلم ، زندگی اور ایمان بیں برکت دے۔ آبین۔

جارے لیے بھی دعا کرتے رہیں۔ اللہ تعالی ہم سب کے لیے دنیاو آخرت میں آسانیاں اور سکون نصیب فرمائے۔

# بیسیر الله الرَّحلٰ الرَّحلٰ الرَّحیٰ مُطٰ الله کے نام سے شروع جور حمٰن ورجیم ہے۔

اَللّٰهُمَّ صَلِّ عَلَى مُحَمَّدٍ وَعَلَى اللِّمُحَمَّدٍ كَمَا صَلَّيْتَ عَلَى إِبْلَهِيْمَ وَعَلَى اللِّهِ اللهُ وَيُمَ إِنَّكَ حَدِيْلًا مُحَمَّدٍ وَعَلَى اللَّهُمَّ مَا إِبْلَهِيْمَ وَعَلَى اللَّهُمَّ مِنْ مُحَمَّدٍ وَعَلَى اللَّهُمَّ مَا إِبْلَهِيْمَ وَعَلَى اللَّهُ مُحَمَّدٍ وَعَلَى اللَّهُ مُحَمَّدٍ كَمَا بَارَكُتَ عَلَى إِبْلَهِيْمَ وَعَلَى اللَّهُ مُحَمَّدٍ وَعَلَى اللّهُ اللَّهُ مَا اللَّهُ اللَّهُ مَا اللَّهُ اللَّهُ مَا اللَّهُ مُحَمَّدٍ وَعَلَى اللَّهُ اللَّهُ مَا اللَّهُ اللَّهُ مُحَمَّدٍ وَعَلَى اللَّهُ مُعَمَّدٍ وَعَلَى اللَّهُ مُحَمَّدٍ وَعَلَى اللَّهُ مُعَمِّدًا وَعَلَى اللَّهُ مُحَمَّدٍ وَعَلَى اللَّهُ مُحَمَّدٍ وَعَلَى اللَّهُ مُعَمِّدًا وَاللَّهُ مُعَلِّمُ اللَّهُ مُعَمِّدًا مُحَمَّدٍ وَعَلَى اللَّهُ مُعَلَّدٍ مُعَمِّدًا مُعَمِّدًا مُعَمِّدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَالِمُ اللَّهُ مُعَمَّدٍ عَلَى اللَّهُ مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَلَّدًا مُعَلَّدًا مُعْمَدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَلَّدُ مُ اللَّهُ مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعَمَّدًا مُعْمَدًا مُعْمِنَا مُعْمَدًا مُعْمَدًا مُعْمِنِينًا مُعْمِعُونِ مُعْمَدًا مُعْمَدًا مُعْمَدًا مُعْمَدًا مُعْمَدًا مُعْمُونِهُ مُعْمِنِينًا مُعْمِعُ مُعْمِعُ مُعْمُ مُعْمِعُ مُعْمُ مُعْمِعُ مُعْمِعُ مُعْمِعُ مُعْمُ مُعْمَدًا مُعْمِعُ مُعْمُ مُعْمِعُ مُعْمِعُ مُعْمِعُ مُع مُعْمُ مُعْمُ مُعْمُ مُعُمّا مُعْمَا مُعْمَاعُ مُعْمُ مُعْمِعُ مُعُمُ مُعْمُ مُعُمّا مُعْمُ مُعْمُ مُعْمُ مُعْمُ مُعُمُ مُعُمُ مُعْمُ مُعْمُ مُعُمُ مُعُمُ مُعُمُ مُعْمُ مُعُمُ مُعُمْمُ مُعُمُ مُم

رَبِّ اشْرَحْ لِيُ صَدُرِيْ ۚ وَيَسِّرُ لِي ٓ اَمْرِي ۗ وَاحْلُلُ عُقْدَةً مِّنْ لِسَا فِي ۗ يَفْقَهُوا قَوْلِي ۗ

رَبِّ رِدْنِيْ عِلْمًا لِي رَبِّ رِدْنِيْ عِلْمًا لِي رَبِّ رِدْنِيْ عِلْمًا لِي رَبِّ رِدْنِيْ عِلْمًا لِي الم

اَللّٰهُمَّ إِنِّ اَسْتَلُكَ عِلْمًا نَّا فِعًا وَّرِزُقًا طَيِّبًا وَّ عَمَلًا مُّتَقَبَّلًا٥

آخر میں درود شریف دوبارہ پڑھیں۔ اللہ تعالیٰ آپ کو جزاد ہے، آپ کے علم کے حصول میں آسانیاں عطافر مائے۔